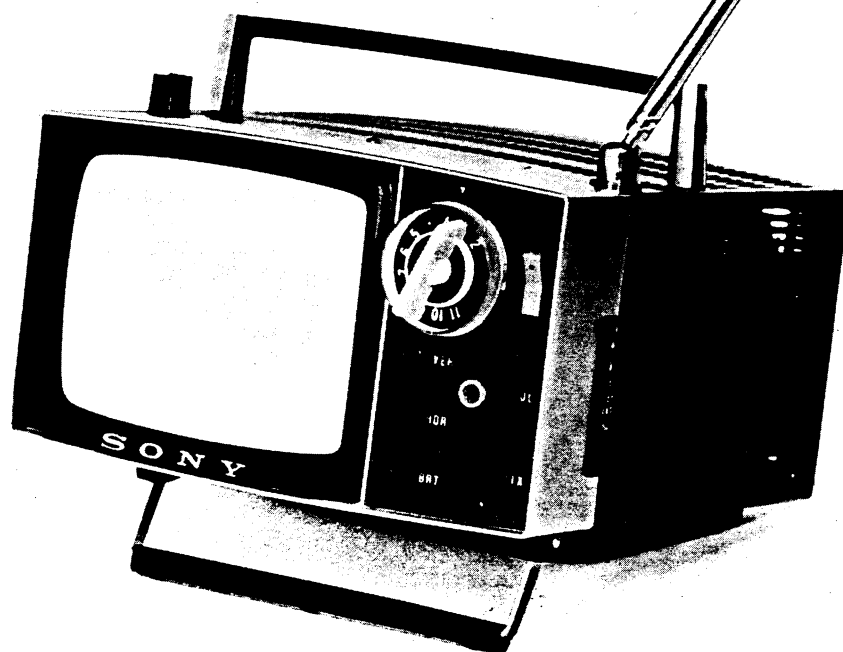


TV5-303M

3270



Specifications

Picture Tube :	5", 70° Deflection, Aluminized Screen		
Transistor :	30 (6 Silicon-including 3 Epitaxial, 24 Germanium)		
Diode :	22 (including 4 Selenium Rectifier)		
Channel Coverage :	CCIR Western VHF Channels E-2 to E-11 French VHF Channels 6, 8, 8A, 12 7, 9, 11 (correspond to E-5, E-7, E-9) Belgian VHF Channels E-2 to E-11 (For UHF reception, connect SONY UHF Converter, VUC-5E.)		
IF Circuit :	4 Stages with 5 stagger tuned elements Video Bandwidth; 3 Mc./-3 dB		
Intercarrier System	CCIR		Video IF (AM) 26.75 Mc
	Separate-Carrier System		Sound IF (FM) 21.25 Mc
	French VHF	26.75 Mc	15.6 Mc
	French UHF	26.75 Mc	20.25 Mc
	Belgian (625 lines)	26.75 Mc	21.25 Mc
	Belgian (819 lines)	26.75 Mc	21.25 Mc
Resolution :	Vertical 400 lines, Horizontal 300 lines		
Sound System :	5.5 Mc Intercarrier and Separate Systems (Can be selected by push button provided in the set.) Power Output stage; OTL system, 1.50 mW Speaker; 3" 70Ω Voice Coil		
Automatic Control :	Puls-operated AGC, Diode AFC, Sync. ANS (Automatic Noise Suppressor)		
Power Requirement :	AC 220 V, 50 or 60 c/s, 12 V Battery (3.5 AH)		
Power Consumption :	AC 13 W, DC 9.6 W (0.8 A)		
Dimensions :	4-1/4" (H) x 7-5/8" (W) x 7-7/8" (D)		
Weight :	8.0 lbs.		
Glare Proofing :	Smoked Filter, 70% Transparency		

SONY®

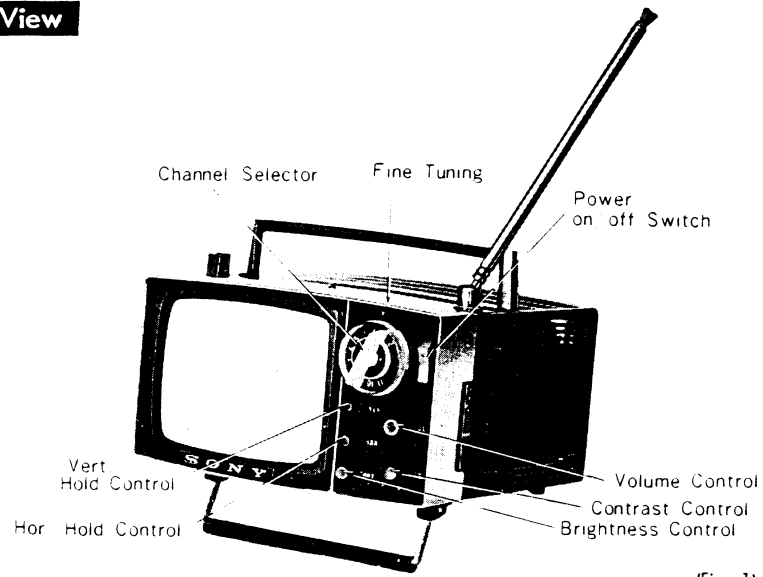
SERVICING GUIDE

3270

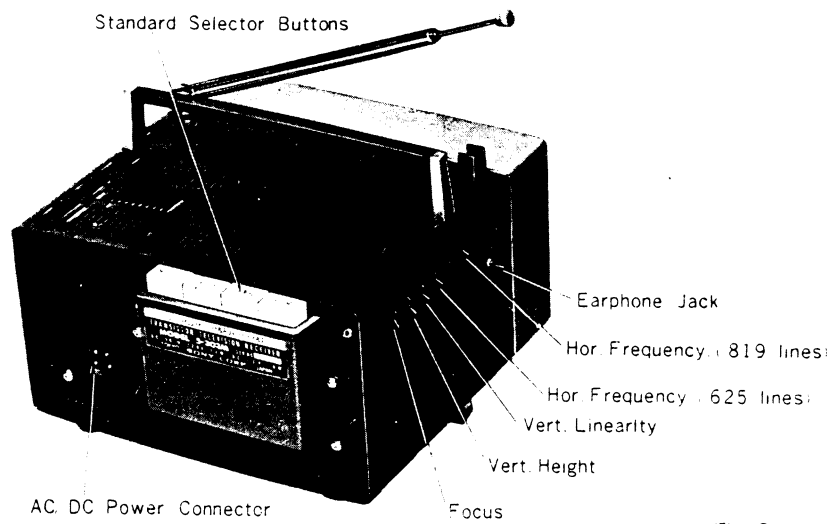
TABLE OF CONTENTS

	Page
Specifications for the SONY Transistor TV 5-303M	1
EXTERNAL VIEW	3
ELECTRONIC PARTS LOCATION	5
METHOD OF DISASSEMBLING THE SET	6
Removal of the Front Control Panel	6
Removal of the Back Cabinet Cover	6
Removal of the Telescopic Antenna and the Tuner	6
Removal of the Signal Circuit Board	7
Removal of the Deflection Circuit Board	8
Removal of the AM SIF Circuit Board	9
Removal of the Rectifier Circuit Board	9
Removal of the Chassis from the Front Panel	10
Removal of the Picture Tube	10
Removal of the High Voltage Block	10
ADJUSTMENT PROCEDURES	11
SIGNAL Circuit Adjustment	11
VIF Adjustment	11
IF Response Adjustment	11
FM SIF Adjustment	12
AM SIF Adjustment	13
SYNC and DEFLECTION Circuit Adjustment	14
WIRING DIAGRAM and SWITCH POSITION	16
SCHEMATIC DIAGRAM	17~18
TROUBLE SHOOTING	19~20
VOLTAGE DISTRIBUTION CHART	21~24
MOUNTING DIAGRAM	26~32
PARTS LIST	33~38

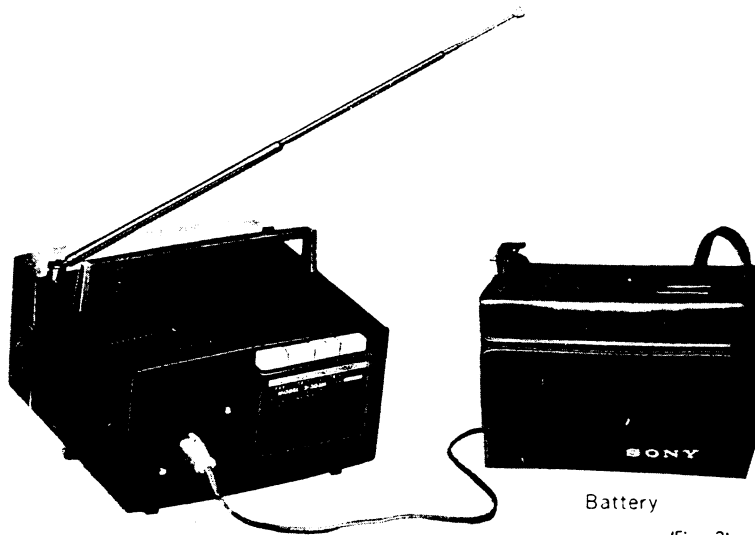
External View



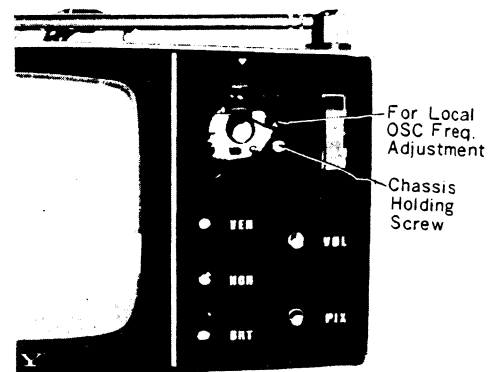
(Fig. 1)



(Fig. 2)



(Fig. 3)



(Fig. 4)

General

The concrete requirements given to be met from the start of the design were as follows:

- 1) To be small in size and light in weight.
- 2) To have the lowest power consumption of any mass produced TV set.
- 3) To operate perfectly as a completely portable TV set under all conditions.
- 4) To provide facilities for easy servicing.

The diagram illustrates the internal circuitry of a color television receiver, organized into several main functional blocks:

- Power Supply:** Includes a Rectifier Circuit Block (X27, X28) connected to a 220V AC source, and a High Vtg. Rect. block (X14) providing 300V and 8kV for the CRT. A 50V supply is also indicated.
- Signal Circuit Board:** Contains the core signal processing stages:
 - RF Amp:** X201
 - Mixer:** X202, X203
 - Local Osc.:** X203
 - SIF AMP:** X23, X24, X25, D21
 - VIF AMP:** X1, X2, X3, X4
 - Video DET.:** X12
 - Video Drive:** X13
 - Video Output:** X13
 - AGC:** X6
 - Pulse AGC:** X5
 - Sync. Separation & Sync. Amp:** X14
- Deflection Circuit Board:** Manages the electron beam deflection:
 - Vert. OSC.:** X16
 - Vert. Drive:** X17
 - Vert. Output:** X18
 - Pulse Shaping:** X15
 - Diode AFC:** X19
 - Hor. OSC.:** X9
 - Hor. Drive:** X20
 - Hor. Output:** X21
 - Keying Pulse:** X10, X11
- Other Components:** Includes a CRT (Cathode Ray Tube), a D21 diode, and various capacitors and resistors indicated by standard electronic symbols.

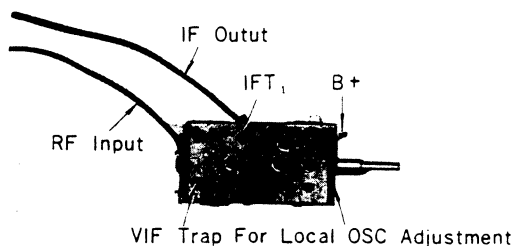
Legend:

- ▲ Silicon Epitaxial Transistor
- ▲ Silicon Mesa Transistor

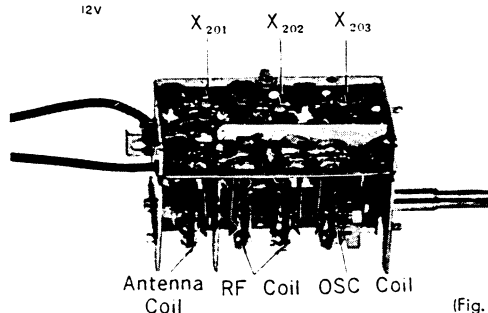
(Fig. 5)

The block diagram shows the internal components of the radio receiver. It is powered by a 12V battery. The signal path starts with a 75Ω antenna input connected to a VIF TRAP. This is followed by an RF AMP stage (X201), a MIX stage (X202), and a VIF T stage (VIFT1), which is also connected to a 75Ω output. A Local OSC (X203) is connected to the MIX stage. The entire circuit is enclosed in a dashed box labeled 'Tuner BT-302M'.

(Fig. 6)

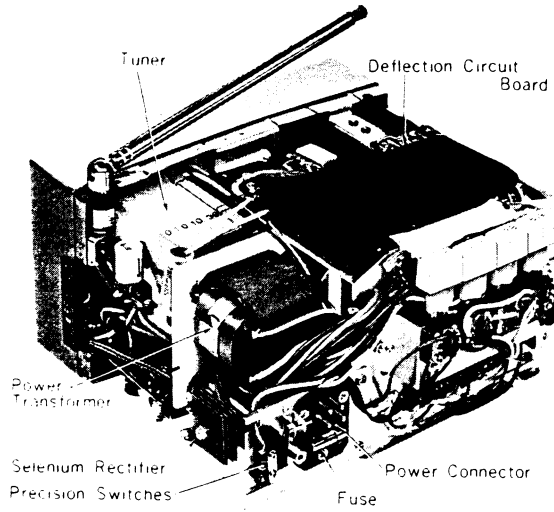


(Fig. 7)

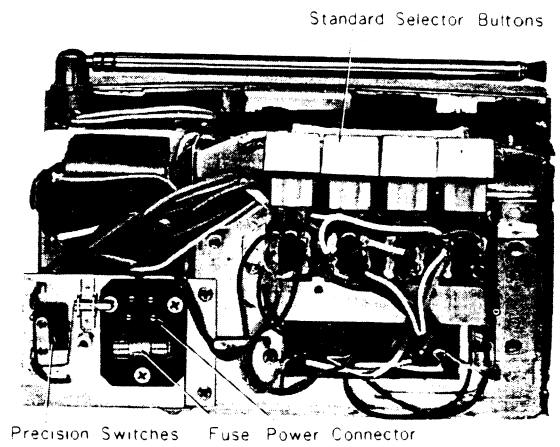


(Fig. 8)

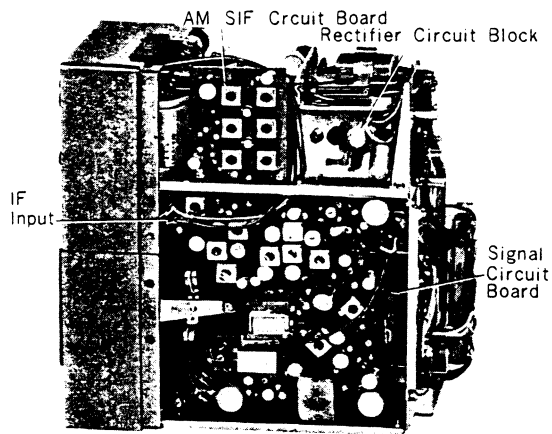
Electronic Parts Location



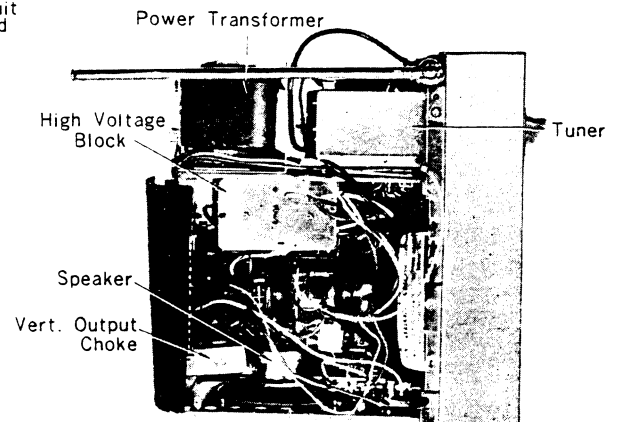
(Fig. 9)



(Fig. 10)



(Fig. 11)



(Fig. 12)

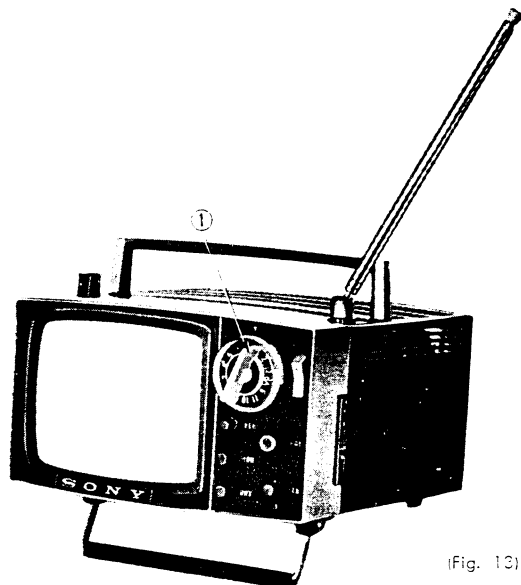
Method of Disassembling the Set

To Remove the Front Control Panel

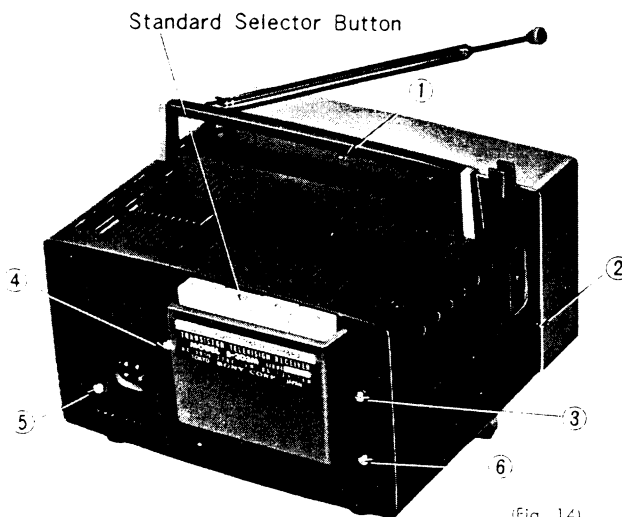
1. Pull all Control Knobs straight out. The Fine Tuning Knob may be somewhat difficult to remove—use force.
2. Remove the two small Screws on the Front Control Panel. The Front Control Panel can now be removed (Fig. 13).

To Remove the Back Cabinet Cover

1. Press the four Standard Selector Buttons at the same time and lock them. (Fig. 14)
2. Remove Screws ① (located on the top) and ② (located on the left side). Remove Screws ③, ④, ⑤ and ⑥ on the back. The Back Cover can now be removed by pulling straight back. (Fig. 14)



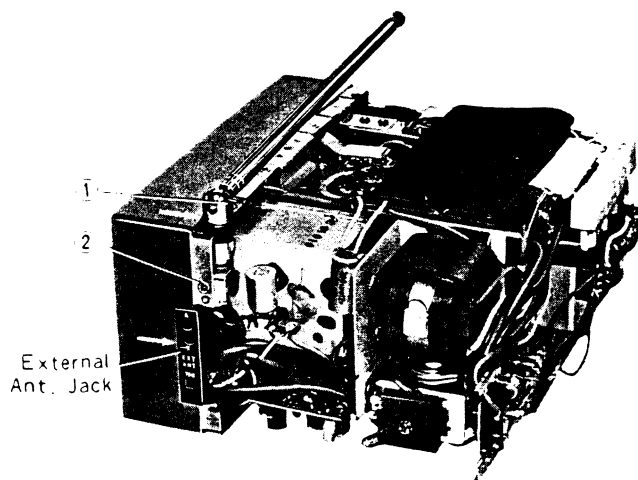
(Fig. 13)



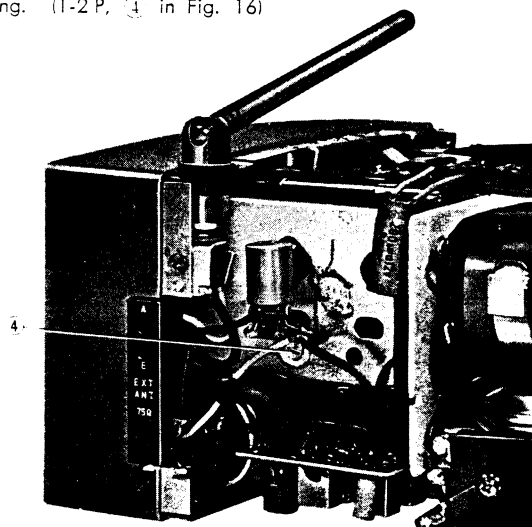
(Fig. 14)

To Remove the Telescopic Antenna and the Tuner

1. Pull off the Pin Connectors of the Tuner IF Lead Wire and the shielded Ground Wire from the Terminals on the Signal Circuit Board as shown in Fig. 15.
2. Remove Screws ① and ② (Fig. 15).
3. Push the Telescopic Antenna and the External Antenna Connectors in the direction shown by the arrows in Fig. 15. The Telescopic Antenna and the Connectors can now be detached.
4. Remove the Terminal Strip from the Tuner by unsoldering. (1-2 P, ④ in Fig. 16)

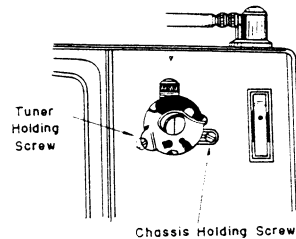


(Fig. 15)

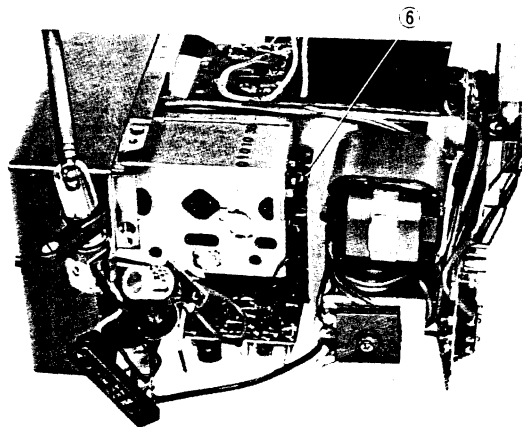


(Fig. 16)

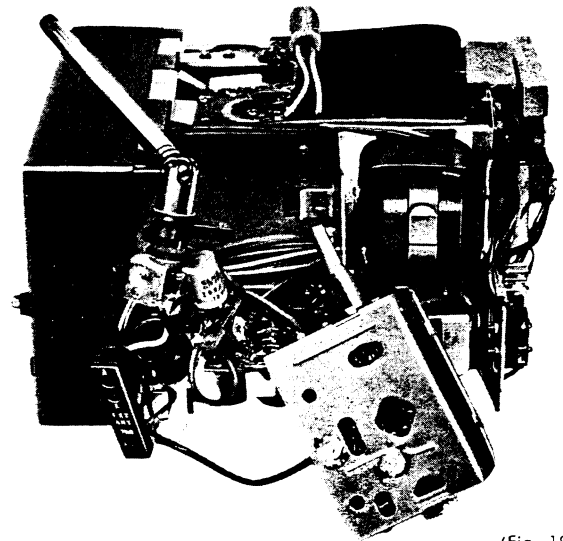
5. The Tuner can be detached by removing two Screws on the front located near the Tuning Control Shaft. One Screw is on the Front Panel and the others inside on the Tuner as shown in Fig. 17.
6. The Tuner, Telescopic Antenna and Antenna Connectors can be removed from the set by unsoldering the Red Wire to the front of the Tuner, the Black Wire to the Chassis and the Yellow Wire with the Resistor to the Antenna Jack. The IF Lead Wire to the Tuner with the Pin Connectors can be pulled through from the back of the Picture Tube. (Fig. 32~33)



(Fig. 17)



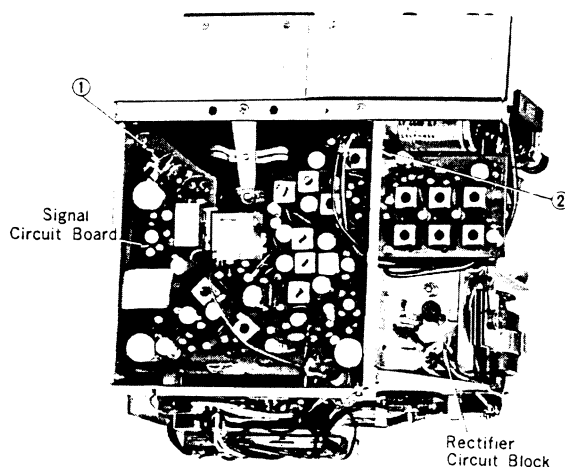
(Fig. 18)



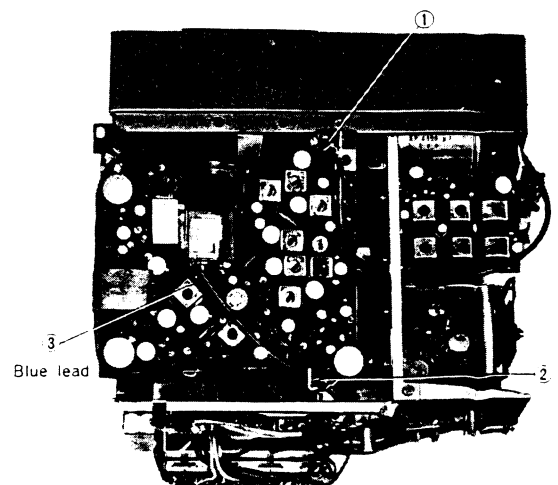
(Fig. 19)

To Remove the Signal Circuit Board

1. Remove the Screws (①, ② in Fig. 20).
2. Pull out the Connectors (①, ② in Fig. 21).
3. Unsolder the Blue Lead at the Relay Terminal coming from the "CCIR" Selector Switch (③ in Fig. 21).
4. The Signal Circuit Board can be removed as a unit by pulling directly from the Multi-Jack.



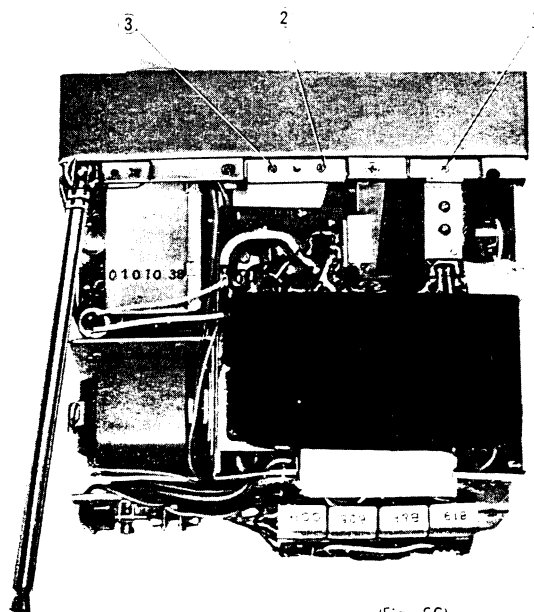
(Fig. 20)



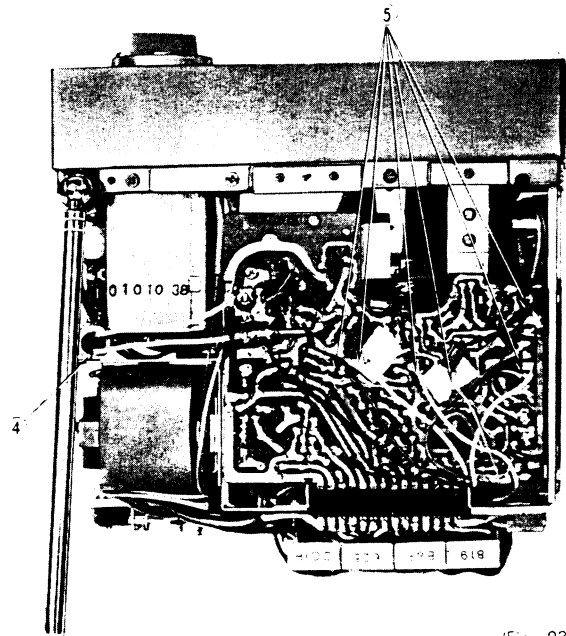
(Fig. 21)

To Remove the Deflection Circuit Board

1. Remove Screws ①, ② and ③. (Fig. 23)
2. Remove the Electrolytic Capacitor "C810" from the Power Supply by pulling the body (④ in Fig. 23)
3. Unsolder the six leads (⑤) in Fig. 23, Yellow, Orange, Green, Gray, Violet and White).
4. Pull out the connectors shown in Fig. 24 and Fig. 25.

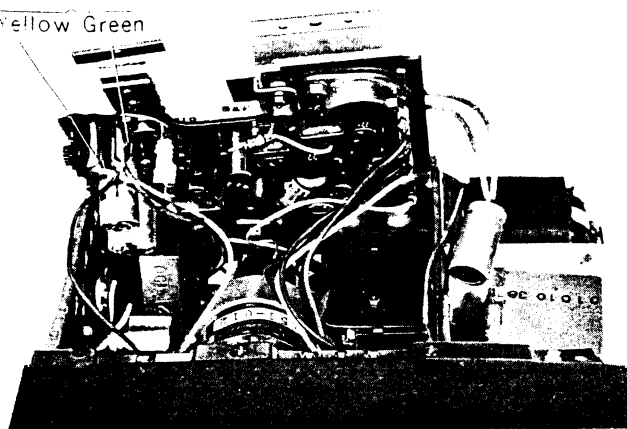


(Fig. 22)



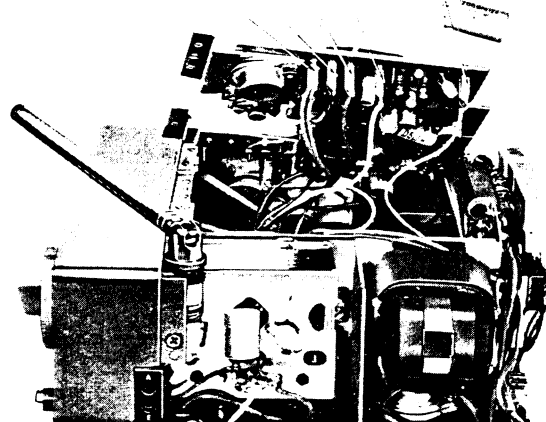
(Fig. 23)

To Deflection
Yellow Green



(Fig. 24)

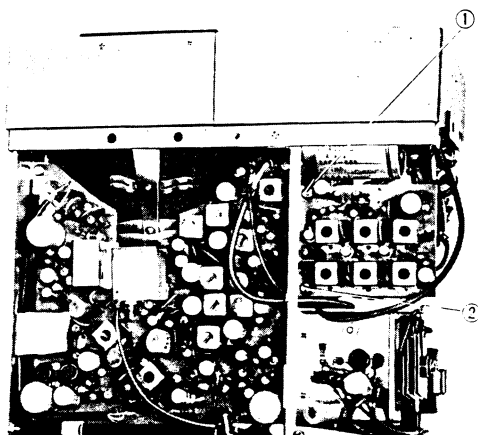
Yellow
To Picture Tube
Red Black Blue White



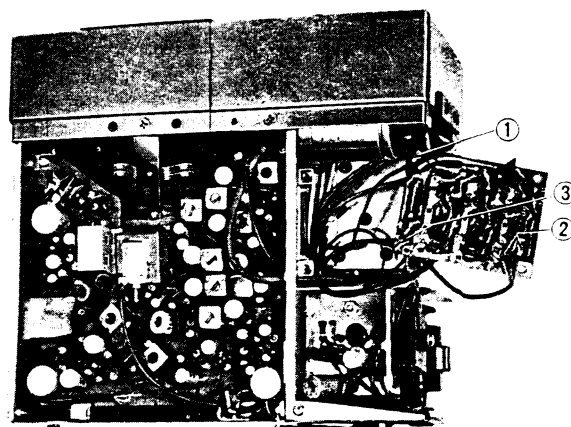
(Fig. 25)

To Remove the AM SIF Circuit Board

1. Remove the two Screws (① and ② in Fig. 26)
2. Unsolder the Blue lead (+B lead), the Black Coaxial Cable (Input lead) and the Black Shielded lead (Output lead) (① in Fig. 27).



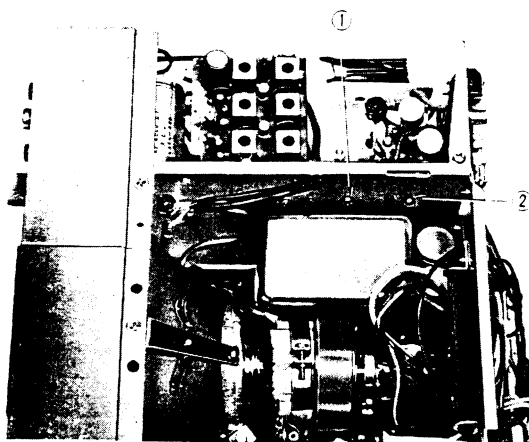
(Fig. 26)



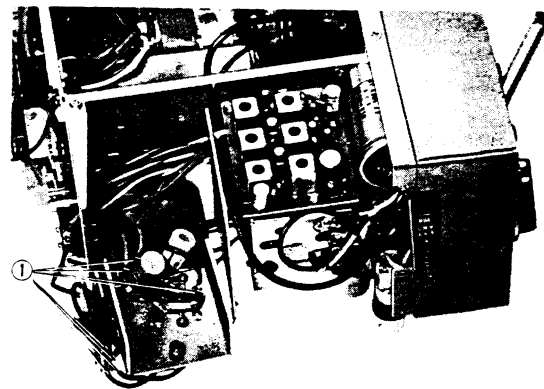
(Fig. 27)

To Remove the Rectifier Circuit Board

1. Remove the two Screws. (① and ② in Fig. 28)
2. Unsolder the eight leads. (① in Fig. 29)



(Fig. 28)



(Fig. 29)

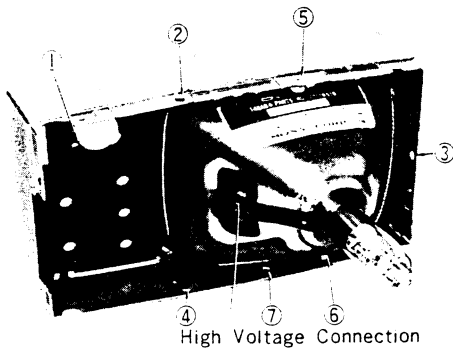
To Remove the Chassis from the Front Panel

Remove Screws ②, ③ and ④. Remove the Screw ① from the front side after pulling off the Channel Selector Knob and the Fine Tuning Knob (Refer to Fig. 4 on page 3.)

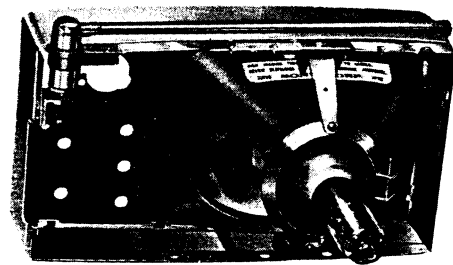
Unsolder the Red, the Blue and the Black Wires from the Pin Connectors. These wires go to the Picture Tube Yoke. Also unsolder the Green Wire from the Choke Coil located just below the Speaker. Pull off the High Voltage Anode Connector from the side of the Picture Tube. This is a Snap Fastener but use caution in removing it. Pull off the Socket of the Picture Tube straight back.

To Remove the Picture Tube

Remove the Screw and Nuts (⑤, ⑥ and ⑦ shown in Fig. 30) and lift up the Picture Tube.



(Fig. 30)

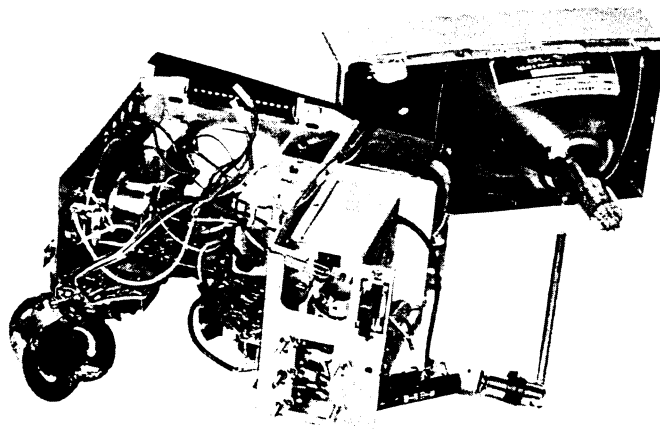


(Fig. 31)

To Remove the High Voltage Block

1. Unsolder three lead wires (Red, Blue and Black).
2. Pull off the Anode Cap.
3. Pull off the Pulse Supplying Pin Connectors coming from the Signal Circuit Board.
4. Remove the Phillips Screw.

NOTE: It is not recommended that the High Voltage Block is disassembled because a special Insulating Material is used inside to coat all High Voltage Points.



(Fig. 32)

Adjustment and Alignment

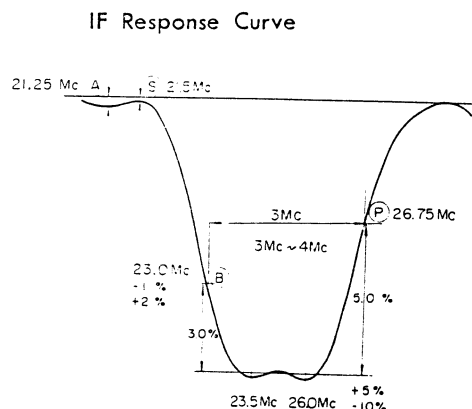
SIGNAL CIRCUIT ADJUSTMENT

A. VIF Adjustment

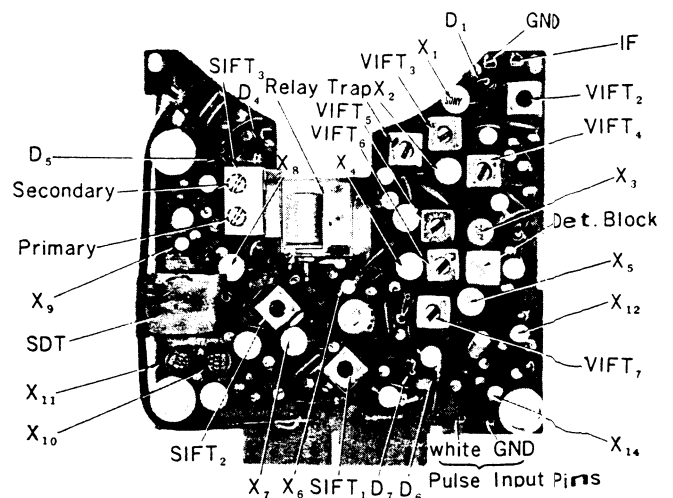
1. Disconnect the Keying Pulse Output Cable (shown by arrow ② in Fig. 20).
2. Connect an Electrolytic Capacitor (500 mfd/120 V) across R316 (10 K Ω).
3. Connect a potentiometer (60 K Ω) between +12 V line and base of X6 (2SC73).
4. Connect a Voltmeter across C-R301 (1.2 K Ω).
5. Adjust the potentiometer to obtain 1.2 V reading on the Voltmeter.
6. Connect the Tuner Output Cable to VIF input pin as shown. (① in Fig. 20)
7. Connect a Sweep Generator and a Marker Generator to the Test Point (T. P.) of the Tuner through a 2 mm fd capacitor.
8. Connect an Oscilloscope across R322.

Step No.	Marker Gen. Frequency	Adjust	Correct Marker position on the response curve	Remarks
1.		VIFT ₇		
2.	21.5 Mc	Trap	Ⓢ (dip)	Set the slug around mid-point of the adjustable range.
3.	26.75 Mc	VIFT ₄	Ⓟ (50%)	
4.	23.0 Mc	VIFT ₃	Ⓟ (30%)	
5.		VIFT ₁ (height)		
6.		VIFT ₂ (Shape of the curve around summit)		For "normal response curve with maximum height.
7.		VIFT ₁ (same)		

* Normal Response Curve is shown in Fig. 33. The difference in level between Ⓟ and Ⓢ on the curve must be within the range between 16 dB and 26 dB. For convenient checking, it is recommended to measure the height at 21.25 Mc, ⓐ, when the height of the response curve is 5 cm. During the alignment procedure, always keep the 5 cm height (corresponding 1 Vpp output) by adjusting output level of the Sweep Generator. If the height ⓐ is approximately from 1 mm to 2 mm, the difference in level between Ⓟ and Ⓢ is considered approximately as 20 dB.



(Fig. 33)



(Fig. 34)

NOTE : If a proper response curve is not obtained by the adjustment procedures described above, change the values of damping resistors (R304, R306) on the Signal Circuit Board for optimum result.

After adjustment, check AGC operation as follows.

- 1) Disconnect the potentiometer (60 K Ω) between the +12 V line and base of X6 (2SC73).

The response curve will become much higher.

- 2) Connect the Keying Pulse Input Cord and feed -8 V DC.

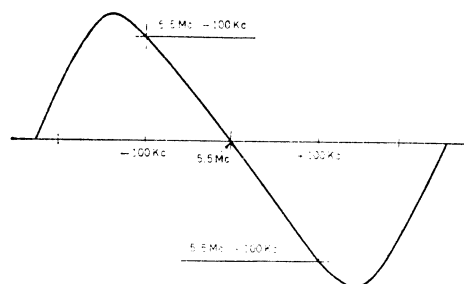
The response curve will be restored to normal by means of AGC effect.

B. FM SIF Adjustment

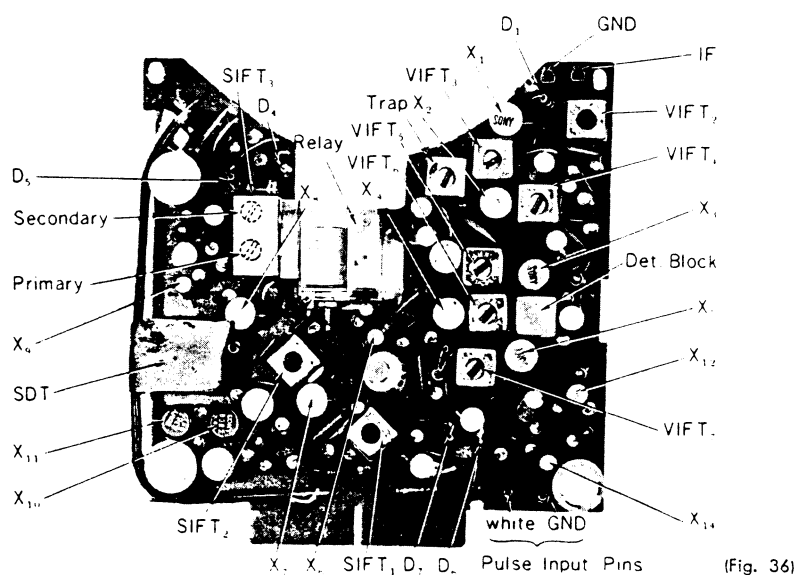
1. Set the Brightness Control to the optimum and the Contrast Control to the maximum positions.
2. Remove the Tuner Output leads.

Step No.	Equipment	Connection	Freq.	Adjust	Result
1.	Test Oscillator	VIDEO DET OUT	5.5 Mc	SIFT ₁	For minimum 5.5 Mc stripes on the Picture.
2.	Same Voltmeter	Same Between junction of R ₂₁₄ and C ₄₁₄ , and ground	5.5 Mc	SIFT ₂ Pry. of SIF ₃ (pink)	For maximum reading on the Voltmeter.
3.	Sweep Gen. Standard Signal Gen. Oscilloscope	VIDEO DET OUT Same Across C ₄₁₄	5.5 Mc (AM)	Sec. of SIF ₃ (blue)	For minimum modulated wave.

Standard S Curve



(Fig. 35)



(Fig. 36)

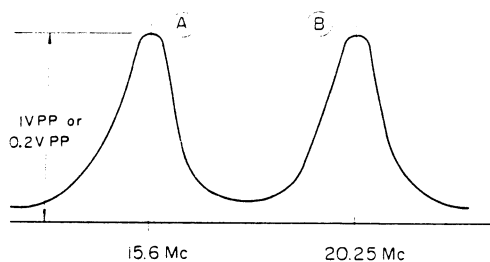
- NOTE:**
1. Repeat the above procedures two or three times.
 2. If S curve is not symmetrical with respect to the intersection of the S curve and the return line, adjust primary winding of SIFT3 for optimum result.

C. AM SIF Adjustment

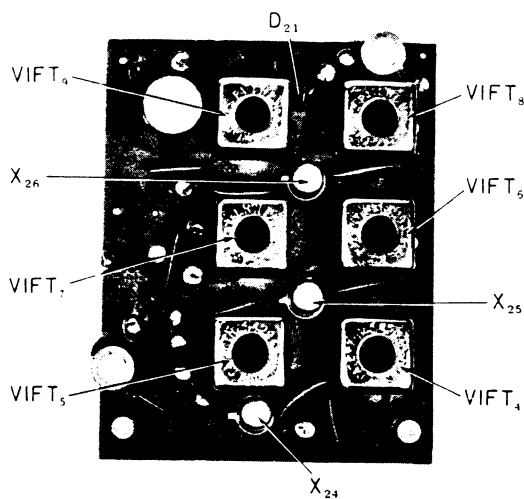
1. Disconnect the Tuner Output Cable (② in Fig. 27) and the SIF Output lead (① in Fig. 27).
2. Connect a Sweep Generator and a Marker Generator to the SIF input (② in Fig. 27).
3. Connect an Oscilloscope in parallel with a 5.1 k Ω resistor between the SIF Detector out terminal and ground.

Step No.	Peak Value of the Response Curve	Marker Gen. Freq.	Adjust	Result
1.	1 Vpp	15.6 Mc and 20.25 Mc	SIFT ₃ SIFT ₉	To position the markers on the relative peak points of the response curve. ((A) & (B))
2.	0.2 Vpp	same	SIFT ₄ SIFT ₅ SIFT ₆ SIFT ₇	
3.	1 Vpp	same		To obtain an optimum response curve. (Fig. 37)
				Check that the response curve is normal. If not, repeat the Steps, 1 and 2.

AM SIF Standard Response Curve



(Fig. 37)



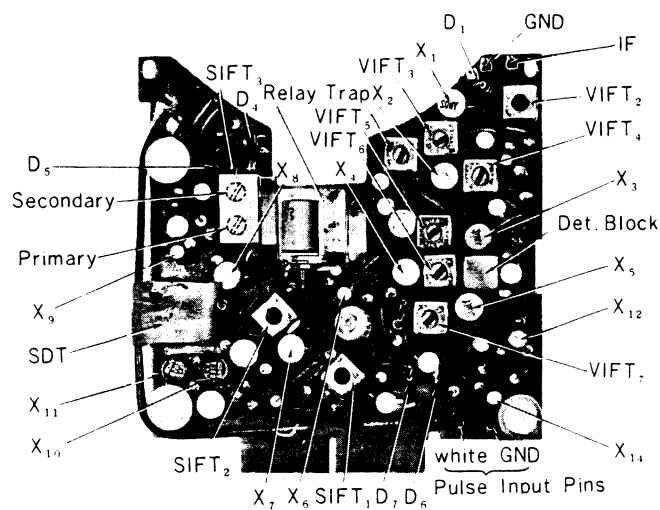
(Fig. 38)

Set the receiver to CCIR (625) standard.

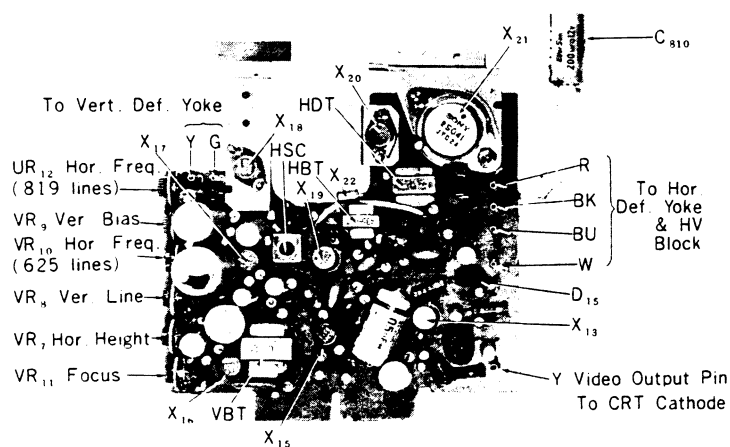
NOTE : As the steps, 5 and 6, have influence on each other, the adjustments must be repeated two or three times.



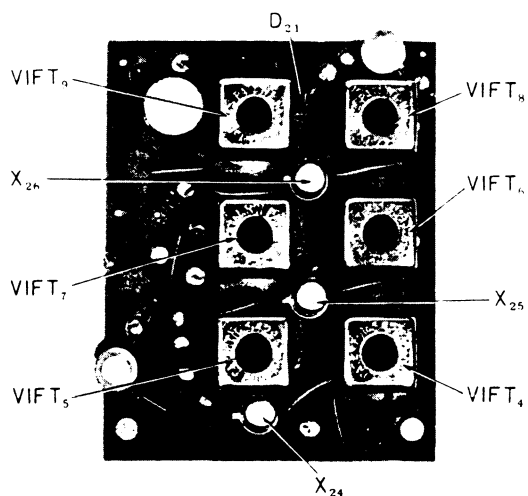
Electronic Information of Each Section



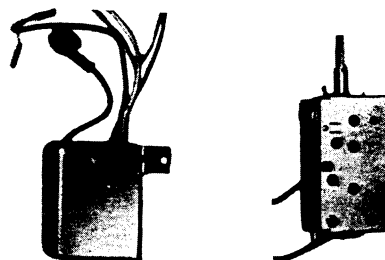
(Fig. 40)



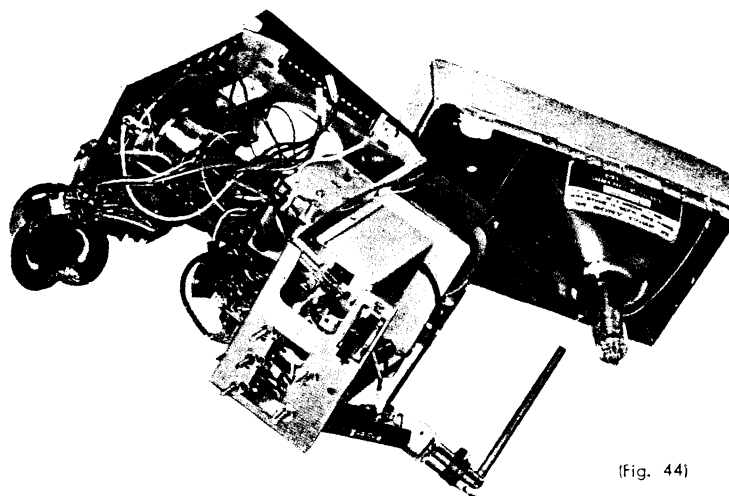
(Fig. 41)



(Fig. 42)



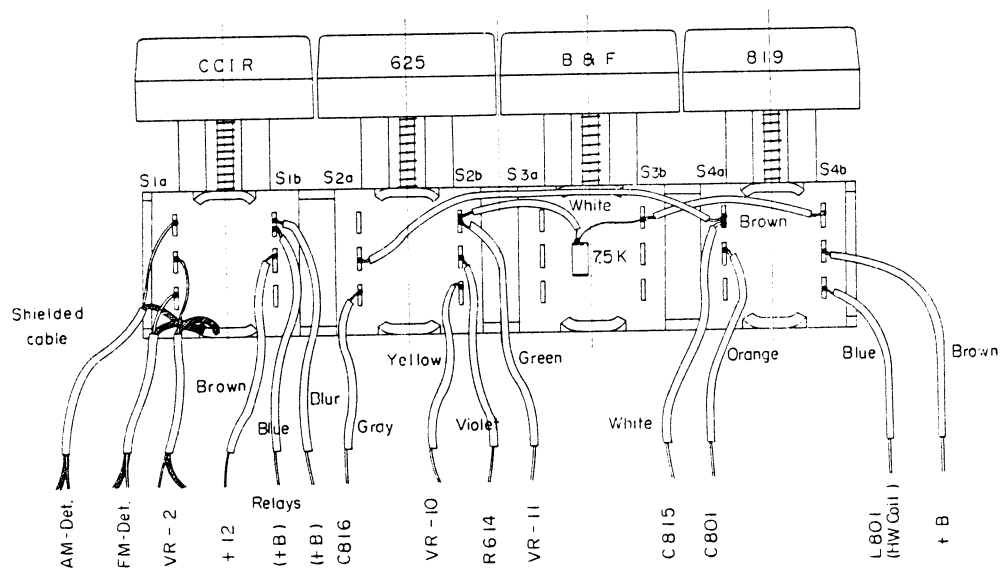
(Fig. 43)



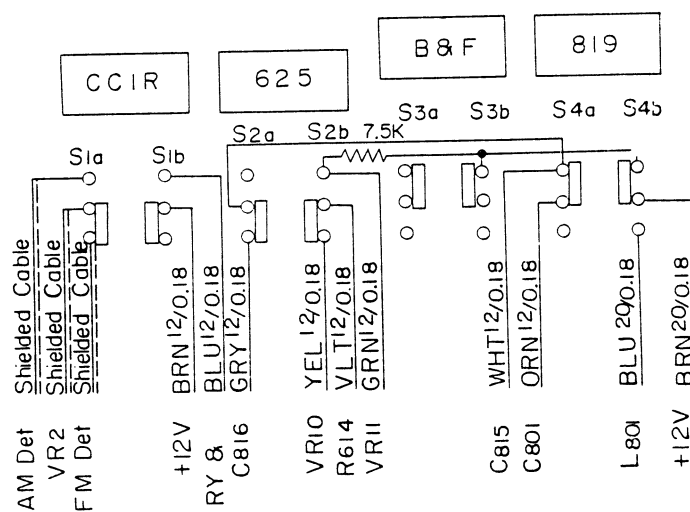
(Fig. 44)

Wiring Diagram

—Standard Selector Buttons—



(Fig. 45)



Switch Position when CCIR and 625 Buttons are pressed

(Fig. 46)

Trouble Shooting

RASTER

Symptom	Checking Procedure		Probable Cause*
1. No Raster and No Sound	Check resistance between B+ and Ground.	No Resistance	Grounded B+ in any of the Circuit Boards. Power Supply
		Approx. 300Ω	
2. No Raster	Neon Lamp is not lit on.	2. No Raster	
		12. No Sound	
		Replace the Deflection Circuit Board with a new one.	High Voltage Block
		Neon Lamp is lit on.	Deflection Circuit Board (X ₁₉ ~X ₂₂ , D ₉ , HBT, HSC, R ₈₀₆ , HDT, C ₈₀₉ , C ₈₁₀ , D ₁₃ , D ₁₅), Poor contact of Multi Jack
3. Dim Raster	Neon Lamp is lit on.	Heater of the Picture Tube is lit.	1. High Voltage Block 2. Picture Tube 3. Cathode Circuit
		Heater of the Picture Tube is not lit.	1. Picture Tube 2. Picture Tube Socket
		Replace the Deflection Circuit Board with a new one.	
		Turn the BRT Knob	Raster size does not change. Picture Tube
		Raster is normal.	Raster size changes. High Voltage Block
		Elongation on left side of Raster.	Deflection Circuit Board (D ₁₅ , C ₅₀₃ , VR-4) High Voltage Block
4. Single Horizontal Stripe on Raster	Replace the Deflection Circuit Board with a new one.	The Stripe still appears.	Deflection Yoke
		The Stripe disappears.	Deflection Circuit Board (X ₁₆ ~X ₁₉ , VBT, C ₇₀₁ , C ₇₀₂ , C ₇₀₄ , C ₇₀₆ , C ₇₀₇ , R ₇₁₃)
5. Vertical Shrinkage			Deflection Circuit Board (X ₁₆ , X ₁₇ , X ₁₈ , C ₇₀₂ , C ₇₀₃ , C ₇₀₅) Maladjustment of Vert. Bias Current
6. Abnormal Raster	Abnormal Oscillation		Deflection Circuit Board (D ₁₅ , HBT, C ₈₁₀ , C ₇₀₂) Maladjustment of HSC
		Excessive Vertical Width	Deflection Circuit Board (C ₇₀₅)
		Narrow Horizontal Width	Deflection Circuit Board (C ₈₀₅ , C ₈₀₆)

DEFLECTION and SYNC

Symptom	Checking Procedure		Probable Cause*
7. No Picture and No Sound	Replace the Signal Circuit Board with a new one.	No Change	Tuner
		Normal	Signal Circuit Board (X ₁ ~X ₄ , X ₁₂ , C ₄₀₁ , C ₅₀₁ , CR ₃₀₁ ~CR ₃₀₄ , VIFT ₂ ~VIFT ₆ , DET Block)
8. No Picture		Refer to Note on page 25.	Signal Circuit Board (X ₁ ~X ₄ , VIFT ₂ ~VIFT ₆ , C ₃₀₂ , C ₃₀₃ , C ₃₀₈ , C ₃₀₉ , C ₃₁₂ , C ₃₁₃ , C ₃₁₇ , C ₃₁₈ , C ₅₀₄)
			Deflection Circuit Board (X ₁₃ , D ₁₄ , C ₅₀₄ , C ₈₀₇)
9. Low Contrast	Replace the Deflection Circuit Board with a new one.	No Change	Signal Circuit Board (X ₁ ~X ₄ , X ₁₂ , CR ₃₀₁ ~CR ₃₀₄ , D ₂₂ , DET Block, VIFT ₂ ~VIFT ₆ , C ₃₀₂ , C ₃₀₃ , C ₃₀₈ , C ₃₀₉ , C ₃₁₂ , C ₃₁₃ , C ₃₁₇ , C ₃₁₈)
		Normal	Deflection Circuit Board (X ₁₃ , D ₁₄ , C ₅₀₄ , C ₈₀₇)
10. Saturated Picture	Replace the Deflection Circuit Board with a new one.	No Change	Signal Circuit Board (X ₅ , X ₆ , X ₁₂ , D ₃ , D ₆ , C ₃₂₄ , R ₃₂₂ , R ₅₀₂ , Det. Block)
		Normal	Deflection Circuit Board (D ₁₃ , VR-3, R ₅₀₅ , C ₅₀₄)
11. Loss of Synchronization	Replace the Deflection Circuit Board with a new one.	No Change	Signal Circuit Board (X ₁₄ , R ₆₀₃ , C ₆₀₃)
		Normal	Deflection Circuit Board (X ₁₅ , X ₁₉ , D ₁₁ , VBT, HBT, L ₈₀₁ , C ₈₀₄ , C ₈₀₇ , C ₈₀₉ , R ₈₀₆) Poor contact of Multi-Jack

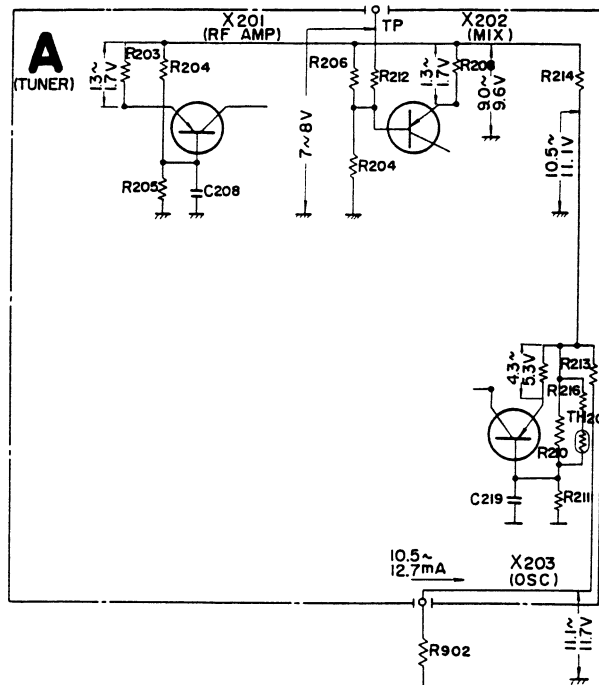
SOUND

Symptom	Checking Procedure		Probable Cause*
12. No Sound	Listen with a Earphone.	Sound is heard through the Earphone.	Earphone Jack
		No sound is heard.	Speaker
			Signal Circuit Board (X ₇ ~X ₉ , SDT, SIFT ₁ ~SIFT ₃ , CR ₄₀₁) Short of Shielded Wire
13. Weak Sound	Cannot be improved by turning the Fine Tuning Knob.	Replace the Signal Circuit Board with a new one.	AM-SIF Circuit Board (X ₂₃ , X ₂₄ , D ₂₁ , SIFT ₄ ~SIFT ₈ , C ₄₇₇ , R ₄₇₁)
			Tuner
			Signal Circuit Board (X ₈ ~X ₁₁ , D ₄ , D ₅ , SDT, C ₄₀₁ , C ₄₀₂ , C ₄₀₅ , C ₄₁₈ , C ₄₂₂) Maladjustment of SIF Circuit
			AM-SIF Circuit Board (X ₂₃ , X ₂₄ , D ₂₁ , SIFT ₄ ~SIFT ₈ , C ₄₅₇ , C ₄₆₀ , C ₄₆₂ , C ₄₆₇ , C ₄₆₉ , C ₄₇₃) Maladjustment of SIF Circuit
14. Distorted Sound	Listen with a Earphone.	Normal	Speaker
		Still distorted	Signal Circuit Board (X ₁₀ , X ₁₁ , SDT, D ₄ , D ₅ , C ₄₁₈) Maladjustment of SIFT ₃ (Sec.)
15. Buzz			AM-SIF Circuit Board (D ₂₁ , C ₄₂₅ , C ₄₇₄ , C ₄₇₇) Maladjustment of SIFT ₄ ~SIFT ₈
			Signal Circuit Board (D ₄ , D ₅ , C ₄₁₁ , C ₄₁₄) Maladjustment of SIFT ₃ (Sec.) Incorrect angle of Shielding Plate

* The cause of trouble may probably be in any of the listed circuits.

Voltage Distribution Chart

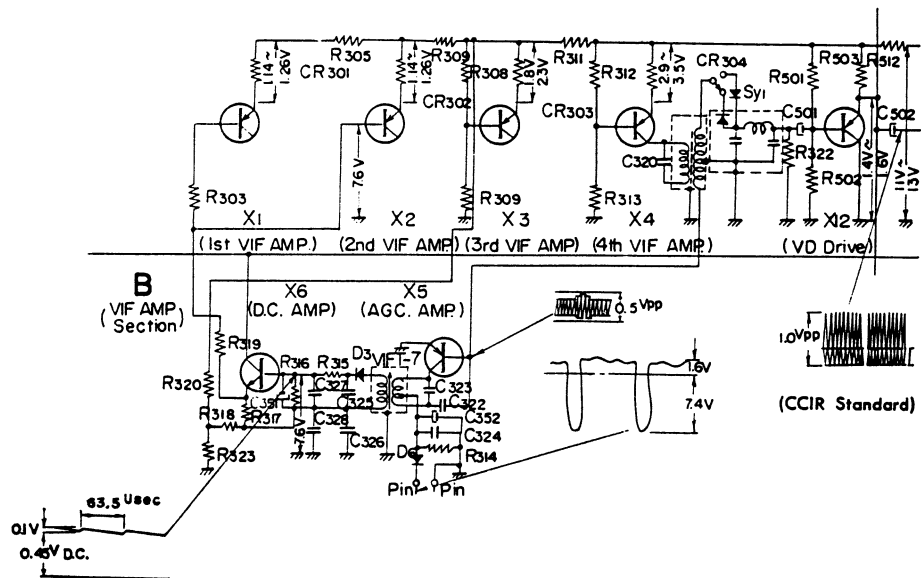
—Tuner—



(Fig. 48)

Voltage Distribution Circuit

—VIF AMP Circuit—

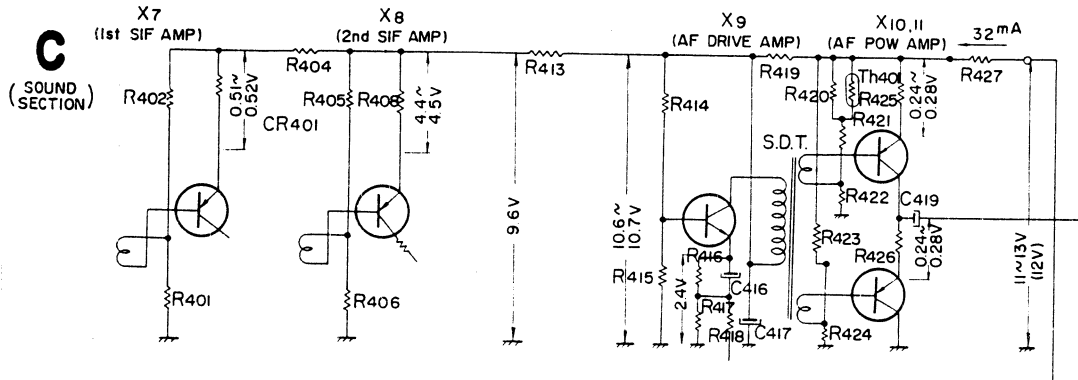


The Switch, SW 1, shown in CCIR Standard

(Fig. 49)

Voltage Distribution Chart

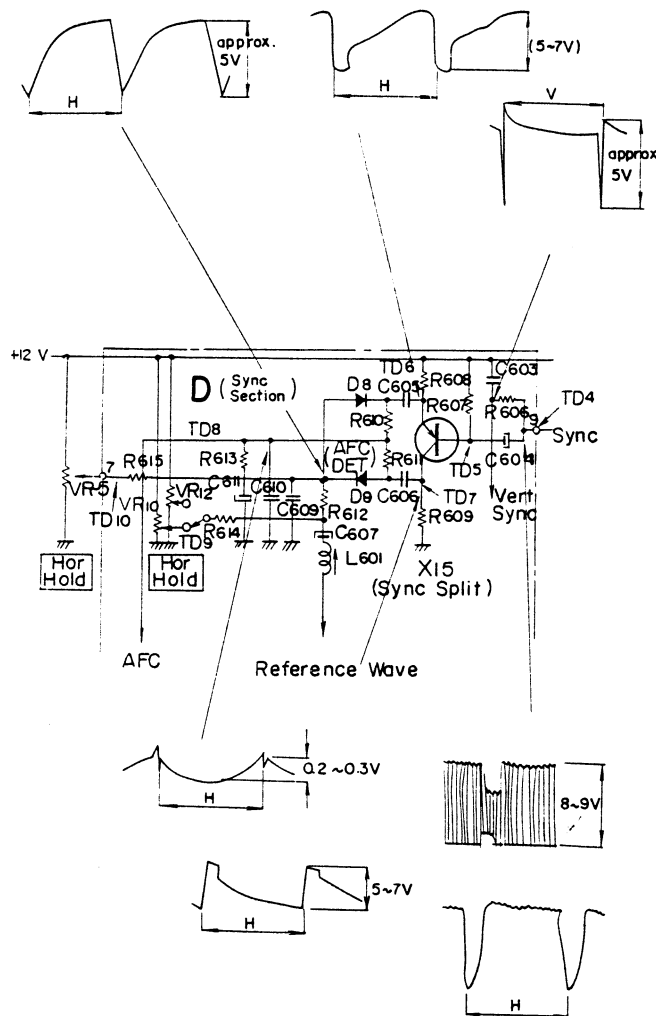
— Sound Circuit —



(Fig. 50)

Voltage Distribution Chart

— SYNC SPLIT Circuit —

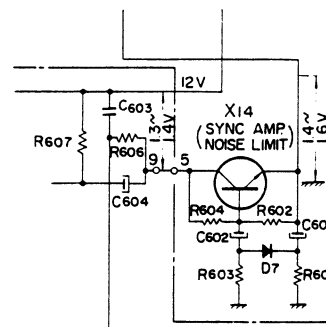


DC Voltage: TD₄...10V, TD₅...11.5V, TD₆...10.5V, TD₇...1.5V
TD₈...5V, TD₉...6.5V, TD₁₀...5.5V

(Fig. 51)

Voltage Distribution Chart

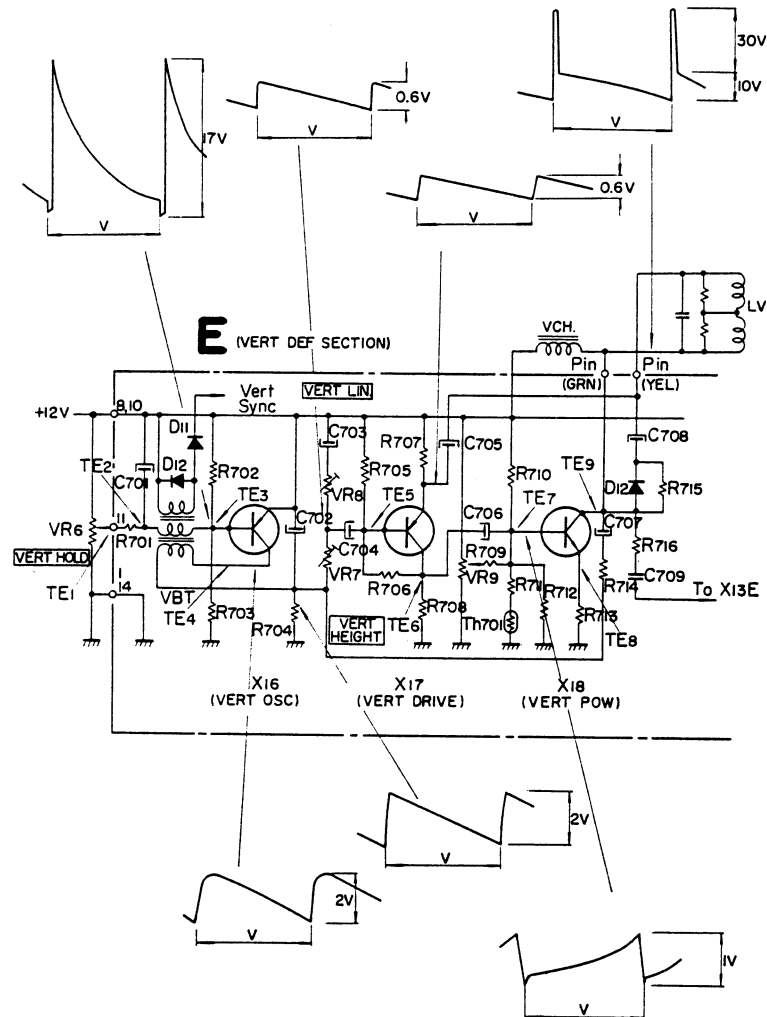
— SYNC SEP, AMP & Noise Limit Circuit —



(Fig. 52)

Voltage Distribution Chart

—VERT Deflection Circuit—

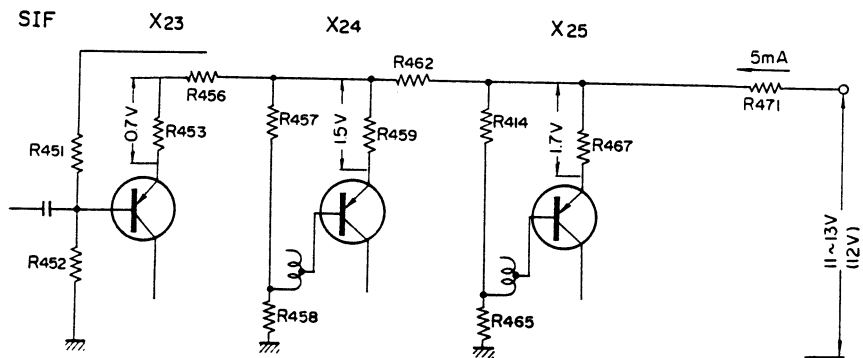


DC Voltage: TE₁...6~9V, TE₂...16V, TE₃...16V, TE₄...5.5V, TE₅...11.7V, TE₆...8.0V, TE₇...1.0V, TE₈...0.33V, TE₉...9.5V

(Fig. 53)

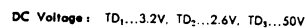
Voltage Distribution Chart

—AM SIF AMP Circuit—



(Fig. 54)

—HOR DEF Circuit—



DC Voltage : ①...2.1V, ②...2.7V, ③...0.02V, ④...17V
⑤...290V, ⑥...50V, ⑦...50~100V, ⑧...230V

(Fig. 55)

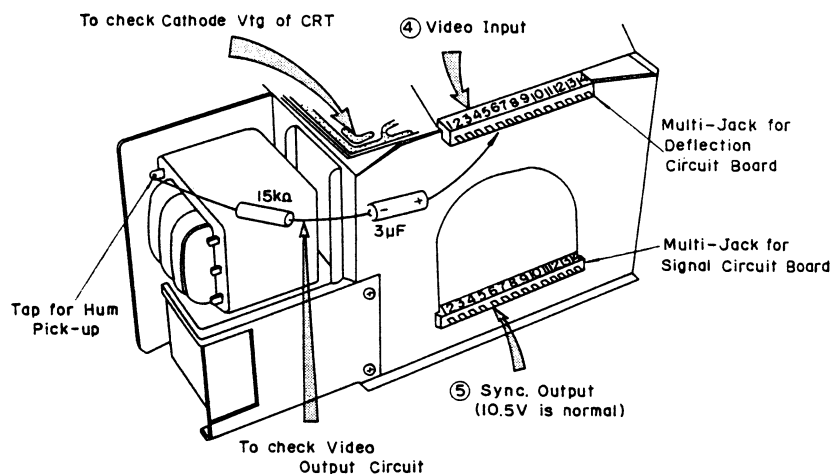
—VIDEO Output Circuit—



To Check Video Amp. & Synchronization Circuit

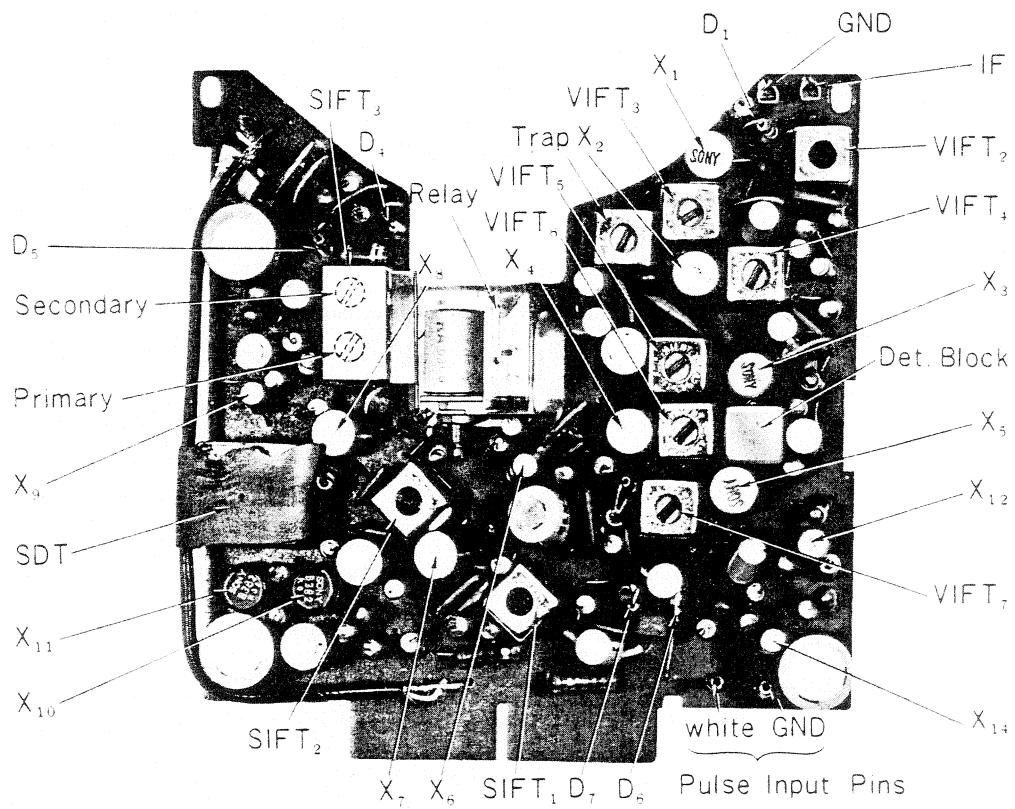
Since the Video Output Circuit of this set is on the Deflection Circuit Board, check the Video Output Circuit as follows.

Apply AC test voltage taken from the secondary winding of the transformer through a $15K\Omega$ Resistor and a $3\mu F$, 500WV or more, Electrolytic Capacitor, to the Terminal No. 4 (The input terminal to the Video Output Circuit) of the Deflection Circuit Board as shown in Fig. 56. If the AC hum appears on the Picture Tube, replace the Signal Circuit Board. If not, replace the Deflection Circuit Board.



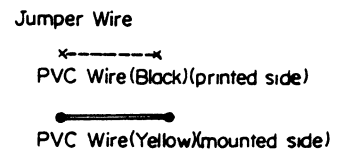
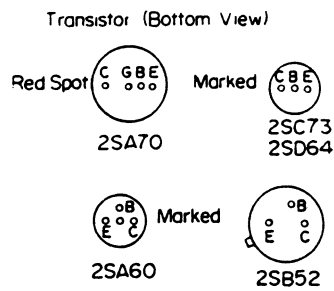
(Fig. 57)

Signal Circuit Board



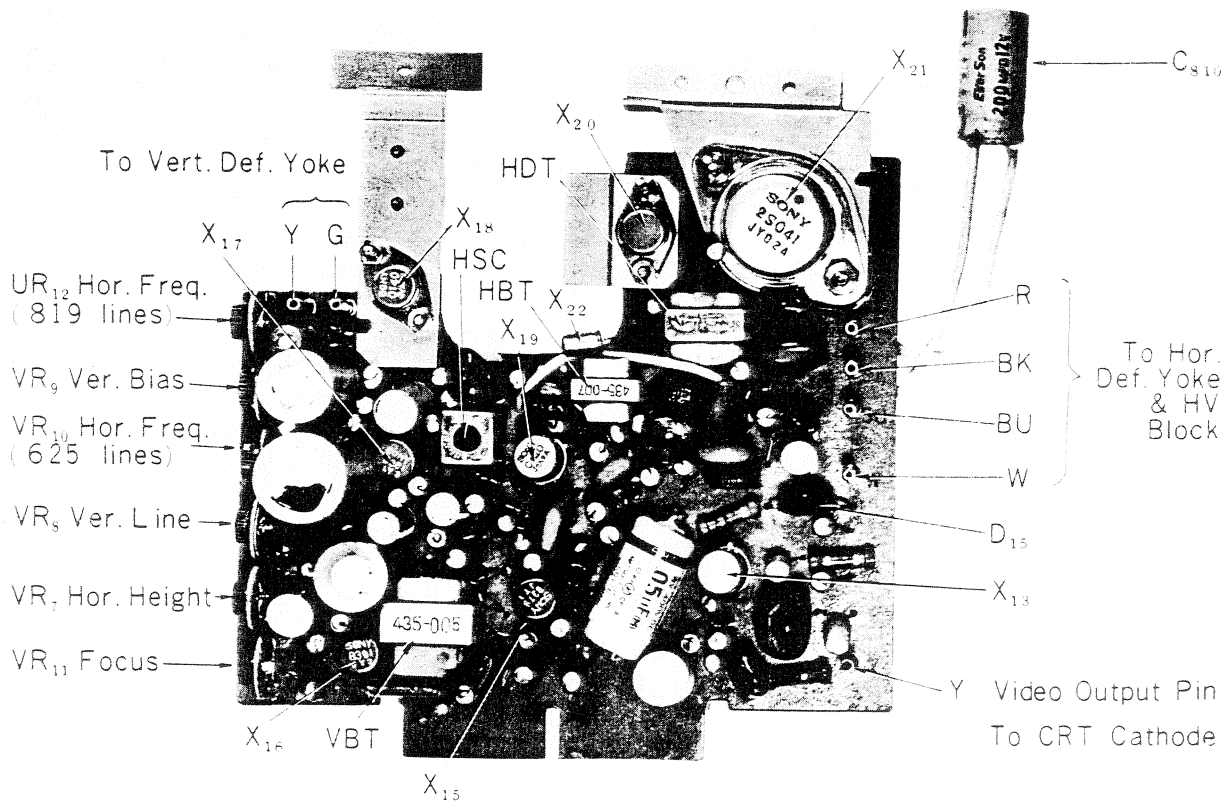
(Fig. 58)

—Signal Circuit Board—



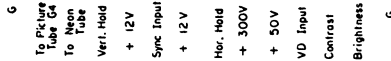
— 27 —

Deflection Circuit Board



(Fig. 60)

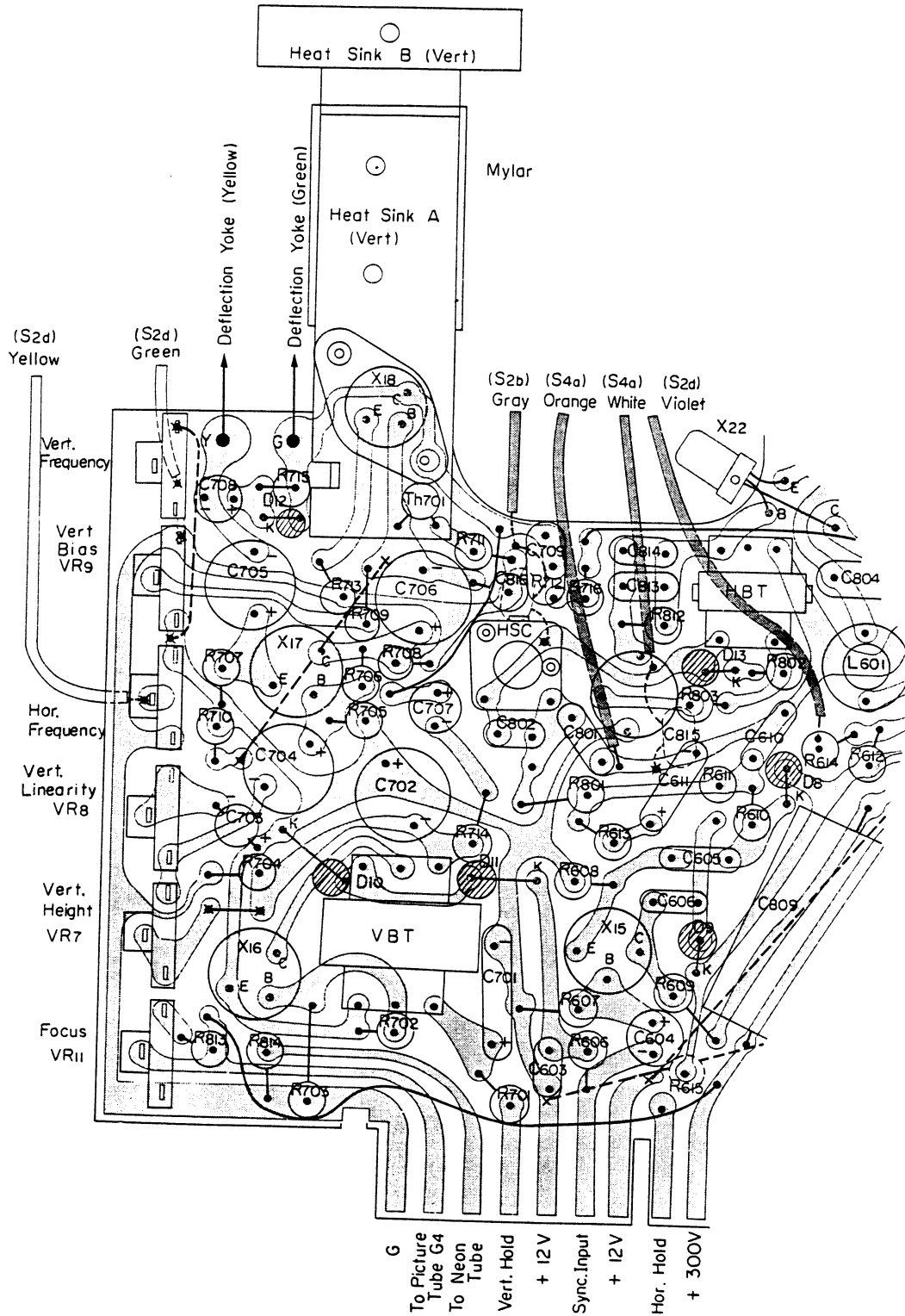
—Deflection Circuit Board—



(Fig. 61)

Mounting Diagram

—Deflection Circuit Board—
(for early Set)

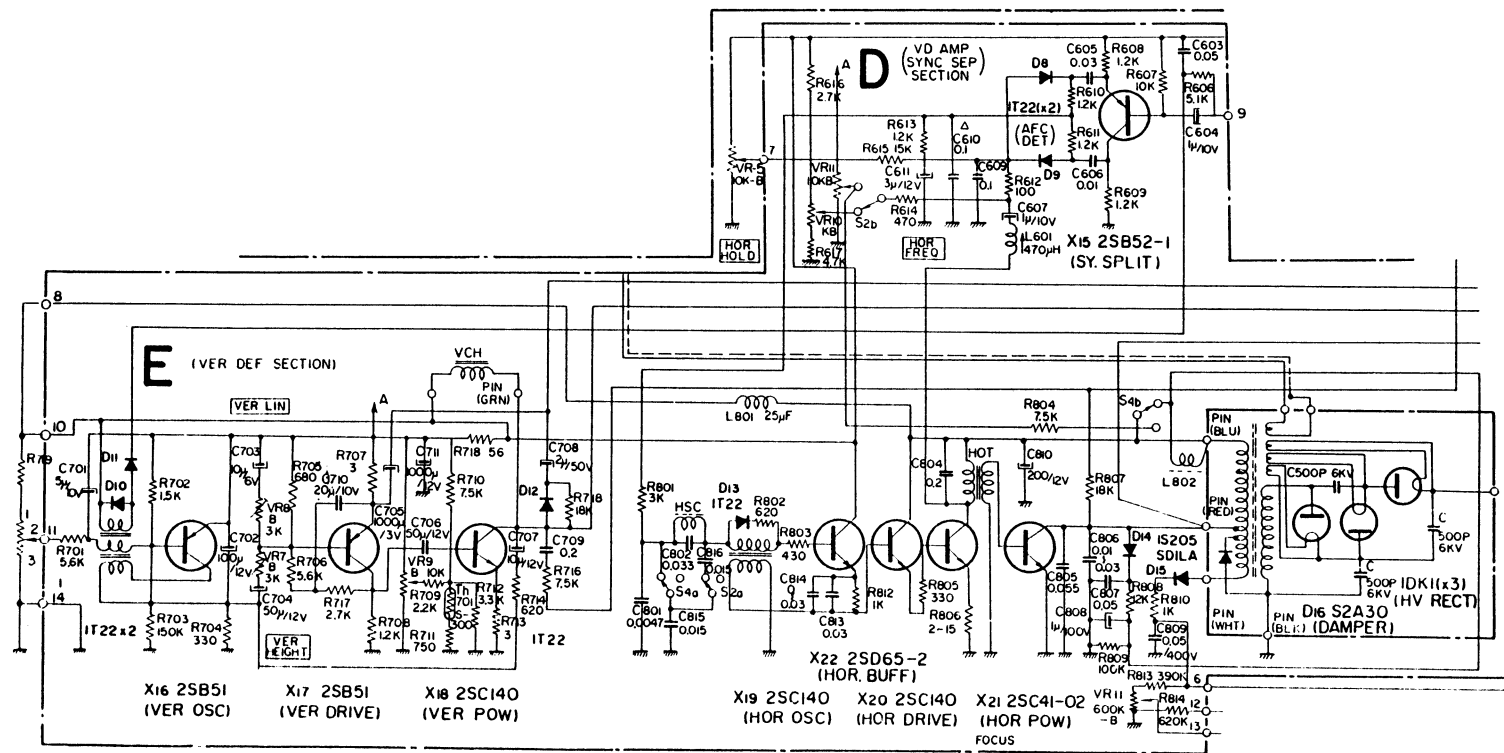


(Fig. 62)

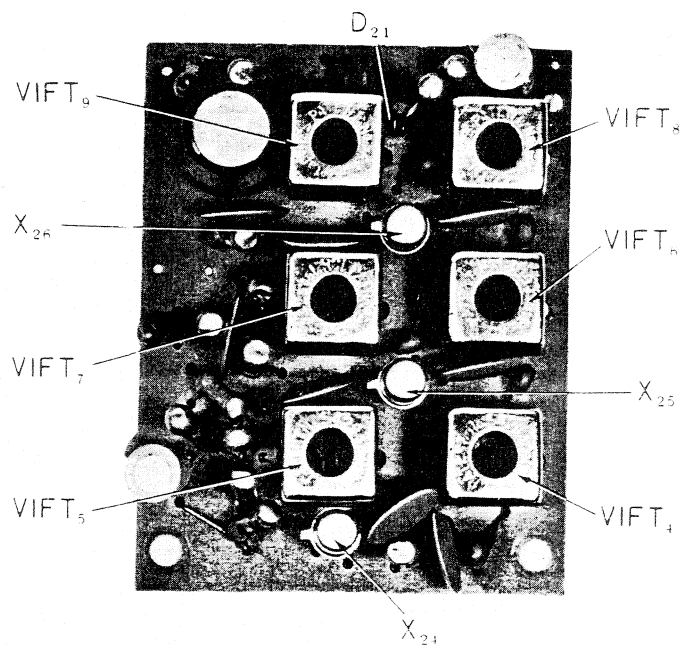
Schematic Diagram

— Deflection Circuit Board —

(for early Set)



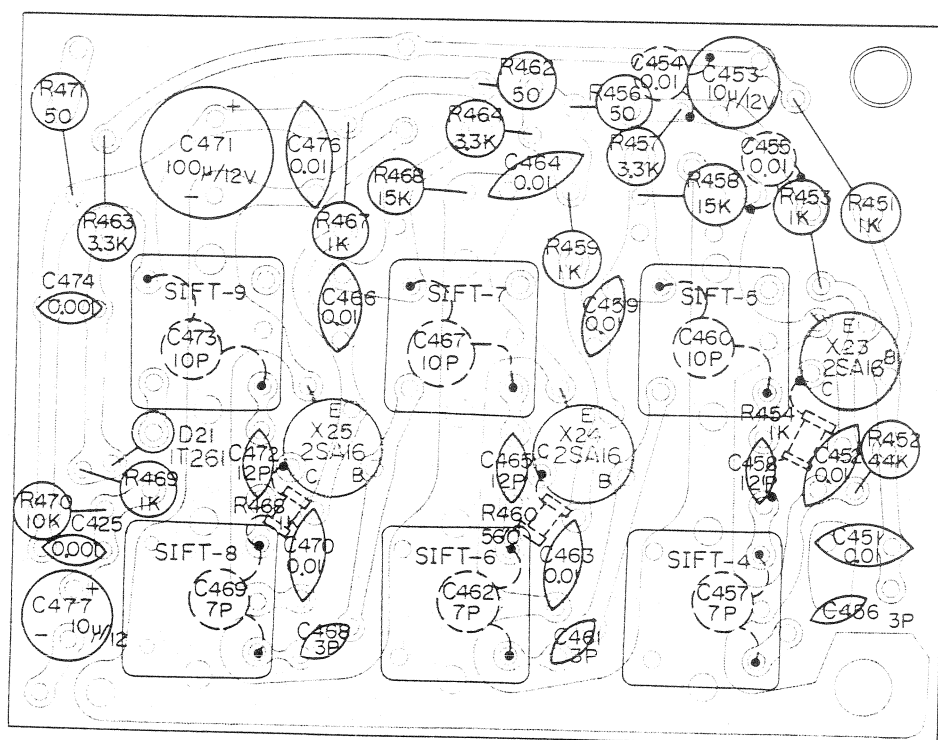
AM SIF Circuit Board



(Fig. 64)

Mounting Diagram

AM SIF Circuit Board



(Fig. 65)

Electrical Parts List (A)

Part No.	Symbol	Description	Part No.	Symbol	Description
		Transistor	1-403-426-11	VIFT ₂	Video IF Transformer
X ₂₀₁		2SA 161 (RF AMP)	-424-02	VIFT ₃	"
X ₂₀₂		2SA 161 (MIX)	-425-02	VIFT ₄	"
X ₂₀₃		2SA161 (OSC)	-417-02	VIFT ₅	"
X ₁		2SA70 (1st VIF AMP)	-418-02	VIFT ₆	"
X ₂		2SA70 (2nd VIF AMP)	-419-02	VIFT ₇	"
X ₃		2SA70 (3rd VIF AMP)	-306-02	SIFT ₁	Sound IF Transformer
X ₄		2SA70 (4th VIF AMP)	-311-02	SIFT ₂	"
X ₅		2SA70 (AGC AMP)	-310-02	SIFT ₃	IF Transformer for FM Detector
X ₆		2SC73 (DC AMP)	X-40032-85-1	L ₂₀₁₋₂₀₄	Tuner Rotary Coil
X ₇		2SA70 (1st SIF AMP)	1-409-029-12	Trap ₂₀₁	Video IF Trap Coil
X ₈		2SA70 (2nd SIF AMP)	1-407-001-00	CH ₂₀₁	IF Choke Coil
X ₉		2SD64 (AF DRIVE AMP)	-013-03	Trap 1	Sound Signal Trap
X ₁₀		2SB52 (AF POW AMP)	1-403-420-00	DET	Video Detector Block
X ₁₁		2SB52 (AF POW AMP)	1-423-048-00	SDT	Sound Driver Transformer
X ₁₂		2SA60 (VD DRIVE)	1-411-003-11	L ₅₀₁	Peaking Coil 470 μ H
X ₁₃		2SC15 (VD OVT)	-002-11	L ₅₀₂	" 270 μ H
X ₁₄		2SC73 (SYNC SEP. AMP, NOISE LIMIT)	-003-11	L ₆₀₁	" 470 μ H
X ₁₅		2SB382 (SY SPLIT)	1-421-013-11	L ₉₀₂	Horizontal Choke Coil
X ₁₆		2SB381 (VER OSC)	1-435-005-00	VBT	Vertical Blocking Transformer
X ₁₇		2SB381 (VER DRIVE)	1-421-106-17	VCH	Vertical Output Choke Coil
X ₁₈		2SC140 (VER POW)	1-413-011-11	HSC	Stabilizing Coil for Horizontal Sweep
X ₁₉		2SC140 (HOR OSC)	1-435-007-12	HBT	Horizontal Blocking Transformer
X ₂₀		2SC140 (HOR DRIVE)	1-437-002-00	HDT	Horizontal Driver Transformer
X ₂₁		2SC41 (HOR POW)	1-439-003-02	HOT	Horizontal Output Transformer
X ₂₂		2SD65 (HOR BUFFER)	1-441-147-11	PT	Power Transformer
X ₂₃		2SA163			Potentiometer
X ₂₄		2SA163	1-221-276-11	VR ₂	Volume Control 5 K Ω -T
X ₂₅		2SA163	-275-11	VR ₃	Contrast Control 500 Ω -E
X ₂₆		2SD47	-265-11	VR ₄	Brightness Control 250 K Ω -B
X ₂₇		2SB382	-297-11	VR ₅	Horizontal Hold Control 10 K Ω -B
		Diode	-297-11	VR ₆	Vertical Hold Control 10 K Ω -B
D ₁		1T22AJ	-335-00	VR ₇	Vertical Height Control 1 K Ω -B
D ₂		1T261J	-326-00	VR ₈	Vertical Linearity Control 500 Ω -B
D ₃		1T261J	-327-00	VR ₉	Vertical Bias Control 10 K Ω -B
D ₄		1T23J	-327-00	VR ₁₀	Horizontal Frequency Control 10 K Ω -B
D ₅		1T23J		VR ₁₁	Focus Control 600 K Ω -B
D ₆		1T22AJ	-351-00		Encapsulated Component
D ₇		1T261J			
D ₈		1T22AJ	1-101-016-01	CR ₃₀₁	1.2K Ω 0.01 μ F 0.01 μ F
D ₉		1T22AJ	-406-01	CR ₃₀₂	"
D ₁₀		1T22AJ	-406-01	CR ₃₀₃	"
D ₁₁		1T22AJ	-406-01	CR ₃₀₄	"
D ₁₂		1T22AJ	-406-01	CR ₃₀₅	"
D ₁₃		1T22AJ			Resistor
D ₁₄		1S205	1-201-454-01	R ₁₀₁	560 Ω RC $\frac{1}{4}$ L
D ₁₅		SD-1LA	1-203-190-00	R ₂₀₁	10K Ω RD $\frac{1}{16}$ L
D ₁₆		S2A30	1-204-111-11	R ₂₀₂	6.8K Ω RD $\frac{1}{16}$ L
D ₁₇₋₂₀		Selenium Rectifier	-111-11	R ₂₀₃	" "
D ₂₁		1T261J	1-203-184-00	R ₂₀₄	2.2K Ω RD $\frac{1}{16}$ L
D ₂₂		1T261J	-188-00	R ₂₀₅	7.5K Ω "
		Thermistor	-182-00	R ₂₀₆	1K Ω "
1-800-001-00	Th ₂₀₁	S-10K	-181-00	R ₂₀₇	390 Ω "
8-860-003-00	Th ₄₀₁	S-90	-185-00	R ₂₀₈	4.7K Ω "
8-860-005-00	Th ₇₀₁	S-300	-889-00	R ₂₀₉	27K Ω "
		HV Rectifier	1-204-204-00	R ₂₁₀	240 Ω "
1-525-039-00		1DK1	1-203-184-00	R ₂₁₁	2.2K Ω "

—continued—

Part No.	Symbol	Description	Part No.	Symbol	Description
1-203-190-00	R ₂₁₅	10K Ω RD $\frac{1}{16}$ L	1-203-434-00	R ₄₆₄	3.3K Ω RD $\frac{1}{16}$ RL
-460-00	R ₂₁₆	2.7K Ω "	-629-00	R ₄₆₅	15K Ω "
-187-00	R ₂₁₇	6.8K Ω "	-421-00	R ₄₆₇	1K Ω "
-185-00	R ₂₁₈	4.7K Ω "	-182-00	R ₄₆₈	1K Ω RD $\frac{1}{16}$ L
1-201-457-00	R ₃₀₁	1.2K Ω RC $\frac{1}{8}$ L	-421-00	R ₄₆₉	1K Ω RD $\frac{1}{16}$ RL
1-203-415-00	R ₃₀₂	150 Ω RD $\frac{1}{8}$ RL	-427-00	R ₄₇₀	10K Ω "
-357-00	R ₃₀₃	100 Ω "	1-204-210-11	R ₄₇₁	51 Ω "
-190-00	R ₃₀₄	10K Ω RD $\frac{1}{16}$ L	1-203-400-00	R ₅₀₁	120K Ω RD $\frac{1}{8}$ RL
-414-00	R ₃₀₅	47 Ω RD $\frac{1}{8}$ RL	-386-00	R ₅₀₂	15K Ω "
-889-00	R ₃₀₆	27K Ω RD $\frac{1}{16}$ L	-375-00	R ₅₀₃	4.3K Ω "
-414-00	R ₃₀₇	47 Ω RD $\frac{1}{8}$ RL	-377-00	R ₅₀₄	5.1K Ω "
-368-00	R ₃₀₈	1.2K Ω "	-370-00	R ₅₀₅	2.2K Ω "
-373-00	R ₃₀₉	3.3K Ω "	-354-00	R ₅₀₆	33 Ω "
-414-00	R ₃₁₁	47 Ω "	-367-00	R ₅₀₇	1.0K Ω "
-368-00	R ₃₁₂	1.2K Ω "	-403-00	R ₅₀₈	8.2K Ω "
-370-00	R ₃₁₃	2.2K Ω "	-383-00	R ₅₀₉	10K Ω "
-412-00	R ₃₁₄	390 Ω "	-100-00	R ₅₁₀	100K Ω RD $\frac{1}{4}$ L
-357-00	R ₃₁₅	100 Ω "	1-201-596-00	R ₅₁₁	3.3M Ω RC $\frac{1}{2}$ L
-383-00	R ₃₁₆	10K Ω "	1-203-011-00	R ₅₁₂	100 Ω RD $\frac{1}{4}$ L
-361-00	R ₃₁₇	470 Ω "	-387-00	R ₆₀₁	22K Ω RD $\frac{1}{8}$ RL
-372-00	R ₃₁₈	2.7K Ω "	-383-00	R ₆₀₂	10K Ω "
-368-00	R ₃₁₉	12K Ω "	-759-00	R ₆₀₃	120 Ω "
-404-00	R ₃₂₀	200 Ω "	-411-00	R ₆₀₄	330K Ω "
-370-00	R ₃₂₂	2.2K Ω "	-377-00	R ₆₀₆	5.1K Ω "
-366-00	R ₃₂₃	820 Ω "	-383-00	R ₆₀₇	10K Ω "
1-201-657-00	R ₃₂₄	56 Ω RC $\frac{1}{8}$ L	-368-00	R ₆₀₈	1.2K Ω "
-657-00	R ₃₂₅	56 Ω "	-368-00	R ₆₀₉	1.2K Ω "
1-203-884-00	R ₃₂₇	33K Ω RD $\frac{1}{16}$ L	-363-00	R ₆₁₀	1.2K Ω "
-380-00	R ₄₀₁	6.2K Ω RD $\frac{1}{8}$ RL	-368-00	R ₆₁₁	1.2K Ω "
-373-00	R ₄₀₂	3.3K Ω "	-357-00	R ₆₁₂	100 Ω "
1-201-123-00	R ₄₀₃	6.8K Ω RC $\frac{1}{8}$ L	-368-00	R ₆₁₃	1.2K Ω "
1-203-381-00	R ₄₀₅	6.8K Ω RD $\frac{1}{8}$ RL	-561-00	R ₆₁₄	470 Ω "
-381-00	R ₄₀₆	6.8K Ω "	-385-00	R ₆₁₅	15K Ω "
-375-00	R ₄₀₈	4.3K Ω "	-378-00	R ₇₀₁	5.6K Ω "
1-201-133-00	R ₄₀₉	1K Ω RC $\frac{1}{8}$ L	-405-00	R ₇₀₂	1.5K Ω "
1-203-373-00	R ₄₁₀	3.3K Ω RD $\frac{1}{8}$ RL	-360-00	R ₇₀₄	330 Ω "
-373-00	R ₄₁₁	3.3K Ω "	-360-00	R ₇₀₅	330 Ω "
-367-00	R ₄₁₂	1K Ω "	-377-00	R ₇₀₆	5.1K Ω "
-361-00	R ₄₁₃	470 Ω "	1-207-018-00	R ₇₀₇	3 Ω RW $\frac{1}{4}$ RL
-385-00	R ₄₁₄	18K Ω "	1-203-367-00	R ₇₀₈	1.0K Ω RD $\frac{1}{8}$ RL
-378-00	R ₄₁₅	5.6K Ω "	-773-00	R ₇₀₉	2.4K Ω "
-405-00	R ₄₁₆	1.5K Ω "	-306-00	R ₇₁₀	4.3K Ω "
-351-00	R ₄₁₇	5.1 Ω "	-316-00	R ₇₁₁	510 Ω "
-370-00	R ₄₁₈	2.2K Ω "	-335-00	R ₇₁₂	750 Ω "
-011-00	R ₄₁₉	100 Ω RD $\frac{1}{4}$ L	1-207-018-00	R ₇₁₃	3 Ω RW $\frac{1}{4}$ RL
-356-00	R ₄₂₀	75 Ω RD $\frac{1}{8}$ RL	1-203-857-00	R ₇₁₄	620 Ω RD $\frac{1}{8}$ RL
-315-00	R ₄₂₁	10 Ω "	1-201-147-00	R ₇₁₅	18K Ω RC $\frac{1}{8}$ L
-368-00	R ₄₂₂	1.2K Ω "	1-203-382-00	R ₇₁₆	7.5K Ω RD $\frac{1}{8}$ RL
-368-00	R ₄₂₃	1.2K Ω "	-773-00	R ₇₁₉	2.4K Ω "
-308-00	R ₄₂₅	18 Ω "	-443-00	R ₈₀₁	3.0K Ω "
-308-00	R ₄₂₆	18 Ω "	-857-00	R ₈₀₂	620 Ω "
-006-00	R ₄₂₇	27 Ω RD $\frac{1}{4}$ L	-760-00	R ₈₀₃	430 Ω "
-334-00	R ₄₂₈	180 Ω "	-360-00	R ₈₀₅	330 Ω "
-421-00	R ₄₅₁	1K Ω RD $\frac{1}{16}$ RL	1-207-024-00	R ₈₀₆	8.2 Ω RW $\frac{1}{4}$ RL
-430-00	R ₄₅₂	43K Ω "	1-203-386-00	R ₈₀₇	18K Ω RD $\frac{1}{8}$ RL
-421-00	R ₄₅₃	1K Ω "	-384-00	R ₈₀₈	12K Ω "
-182-00	R ₄₅₄	1K Ω RD $\frac{1}{16}$ L	-399-00	R ₈₀₉	100K Ω "
1-204-210-11	R ₄₅₆	51 Ω RD $\frac{1}{16}$ RL	-031-00	R ₈₁₀	1K Ω RD $\frac{1}{4}$ L
1-203-434-00	R ₄₅₇	3.3K Ω "	-367-00	R ₈₁₂	1K Ω RD $\frac{1}{8}$ RL
-659-00	R ₄₅₈	15K Ω "	-867-00	R ₈₁₃	390K Ω "
-421-00	R ₄₅₉	1K Ω "	-868-00	R ₈₁₄	620K Ω "
-488-00	R ₄₆₀	560 Ω RD $\frac{1}{16}$ L	-306-00	R ₉₀₁	4.3K Ω "
1-204-210-11	R ₄₆₂	51 Ω RD $\frac{1}{16}$ RL	-148-00	R ₉₀₂	47 Ω RD $\frac{1}{4}$ L
1-203-434-00	R ₄₆₃	3.3K Ω "	-377-00	R ₉₀₃	5.1K Ω RD $\frac{1}{8}$ RL

— continued —

Part No.	Symbol	Description	Part No.	Symbol	Description
1-203-382-00	R ₉₀₄	7.5K Ω RD $\frac{1}{2}$ RL	1-121-244-11	C ₃₅₂	0.1 μ F 25WV Electrolytic
1-101-001-01	C ₁₀₁	0.001 μ F Ceramic	1-101-112-01	C ₄₀₁	50PF Ceramic
-001-01	C ₁₀₃	0.001 μ F "	-004-01	C ₄₁₂	0.01 μ F 250WV Ceramic
-562-11	C ₂₀₁	50PF "	-069-01	C ₄₁₃	4PF Ceramic
-076-00	C ₂₀₂	2PF "	-319-01	C ₄₀₄	70PF "
-076-00	C ₂₁₃	2PF "	-004-01	C ₄₁₅	0.01 μ F 50WV Ceramic
1-101-030-11	C ₂₀₄	200PF "	-004-01	C ₄₁₆	0.01 μ F 50WV "
1-141-060-11	C ₂₀₅	Cylindrical Trimmer Capacitor	-085-01	C ₄₀₇	6PF Ceramic
1-101-061-11	C ₂₁₆	10PF Ceramic	-129-01	C ₄₁₈	40PF "
1-101-547-11	C ₂₀₇	20PF "	-004-01	C ₄₁₉	0.01 μ F 50WV Ceramic
-553-11	C ₂₀₈	0.0012 μ F "	1-103-023-11	C ₄₁₁	400PF Micro Styrole Capacitor
-060-11	C ₂₁₉	3PF "	-118-01	C ₄₁₂	0.01 μ F 50WV Ceramic
-562-11	C ₂₁₁	Cylindrical Trimmer Capacitor	1-101-118-01	C ₄₁₃	0.01 μ F 50WV "
1-141-060-11	C ₂₁₂	"	-086-01	C ₄₁₄	0.1 μ F 50WV "
-060-11	C ₂₁₃	"	1-121-104-05	C ₄₁₅	10 μ F 6WV Electrolytic
-038-11	C ₂₁₄	5PF Ceramic	-102-05	C ₄₁₆	30 μ F 6WV "
1-101-061-11	C ₂₁₅	10PF "	-120-01	C ₄₁₇	100 μ F 12WV "
-061-11	C ₂₁₆	Cylindrical Trimmer Capacitor	-135-05	C ₄₁₈	50 μ F 6WV "
-027-11	C ₂₁₇	20PF Ceramic	-122-05	C ₄₁₉	50 μ F 12WV "
-547-11	C ₂₁₈	0.0012 μ F "	-121-01	C ₄₂₀	200 μ F 12WV "
-562-11	C ₂₁₉	200PF "	1-101-004-11	C ₄₅₁	0.01 μ F 50V Ceramic
-547-11	C ₂₂₀	0.012 μ F "	-004-11	C ₄₅₂	" "
-533-11	C ₂₂₁	3PF "	1-121-118-11	C ₄₅₃	10 μ F 12WV Electrolytic
1-141-060-11	C ₂₂₂	Cylindrical Trimmer Capacitor	1-101-004-11	C ₄₅₄	0.01 μ F 50V Ceramic
-054-11	C ₂₂₃	Piston Trimmer A	-011-11	C ₄₅₆	3PF 50V "
1-101-553-11	C ₂₂₄	3PF Ceramic	-094-11	C ₄₅₇	7PF 50V "
-027-11	C ₂₂₅	20PF "	-130-11	C ₄₅₈	12PF 50V "
-554-11	C ₂₂₆	4PF "	-004-11	C ₄₅₉	0.01 μ F 50V "
-547-11	C ₂₂₇	0.0012 μ F "	-094-11	C ₄₆₀	7PF 50V "
-201-12	C ₂₂₈	0.0018 μ F "	-011-11	C ₄₆₁	3PF 50V "
-733-11	C ₂₂₉	30PF "	-094-11	C ₄₆₂	7PF 50V "
-072-14	C ₂₃₁	0.01 μ F "	-004-11	C ₄₆₃	0.01 μ F 50V "
-645-01	C ₃₀₁	10PF "	-130-11	C ₄₆₄	0.01 μ F 50V "
-001-01	C ₃₀₂	0.01 μ F "	-004-11	C ₄₆₅	12PF 50V "
-106-01	C ₃₀₃	5 μ F 6WV Electrolytic	-004-11	C ₄₆₆	0.01 μ F 50V "
-046-01	C ₃₀₄	2PF Ceramic	-094-11	C ₄₆₇	7PF 50V "
-114-01	C ₃₀₅	15PF "	-011-11	C ₄₆₈	3PF 50V "
1-101-046-01	C ₃₀₆	2PF "	-061-11	C ₄₆₉	10PF 50V "
-111-01	C ₃₀₇	200PF "	-004-11	C ₄₇₀	0.01 μ F 50V "
-004-01	C ₃₀₈	0.01 μ F 50WV Ceramic	1-121-120-11	C ₄₇₁	100 μ F 12WV Electrolytic
1-121-145-05	C ₃₀₉	1 μ F 6WV Electrolytic	1-101-130-11	C ₄₇₂	12PF 50V Ceramic
1-101-036-01	C ₃₁₀	3PF Ceramic	-061-11	C ₄₇₃	10PF 50V "
-114-01	C ₃₁₁	15PF "	-455-11	C ₄₇₄	0.01 μ F 50V "
-004-01	C ₃₁₂	0.01 μ F 50WV Ceramic	-455-11	C ₄₇₅	0.01 μ F 50V "
1-121-106-05	C ₃₁₃	5 μ F 6WV Electrolytic	1-121-118-11	C ₄₇₇	10 μ F 12WV Electrolytic
1-101-046-01	C ₃₁₄	2PF Ceramic	-118-11	C ₅₀₁	10 μ F 12WV "
-649-01	C ₃₁₅	12PF "	-118-11	C ₅₀₂	10 μ F 12WV "
1-121-106-05	C ₃₁₆	5 μ F 6WV Electrolytic	1-105-669-12	C ₅₀₃	0.047 μ F 50WV Mylar
1-101-004-01	C ₃₁₇	0.01 μ F 50WV Ceramic	1-121-115-05	C ₅₀₄	100 μ F 6WV Electrolytic
1-121-135-05	C ₃₁₈	50 μ F 6WV Electrolytic	1-105-689-12	C ₅₀₅	0.22 μ F 50WV "
1-101-046-01	C ₃₁₉	2PF Electrolytic	-721-12	C ₅₀₆	0.047 μ F 100WV "
-645-01	C ₃₂₀	10PF "	-681-12	C ₅₀₇	0.047 μ F 50WV M
1-121-121-01	C ₃₂₁	200 μ F 12WV Electrolytic	1-127-906-00	C ₆₀₁	1 μ F 10WV Electrolytic (Alox)
1-101-069-01	C ₃₂₂	4PF Ceramic	-907-00	C ₆₀₂	3 μ F 6WV " "
-627-01	C ₃₂₃	6PF "	1-105-681-12	C ₆₀₃	0.047 μ F 50WV Mylar
-424-01	C ₃₂₄	500PF 25WV Ceramic	1-127-906-00	C ₆₀₄	1 μ F 10WV Electrolytic (Alox)
-058-01	C ₃₂₅	0.05 μ F 50WV "	1-105-679-12	C ₆₀₅	0.033 μ F 50WV Mylar
-004-01	C ₃₂₆	0.01 μ F 50WV "	-673-12	C ₆₀₆	0.01 μ F 50WV "
-086-01	C ₃₂₇	0.1 μ F 50WV "	1-127-906-00	C ₆₀₇	1 μ F 10WV Electrolytic (Alox)
1-121-116-05	C ₃₂₈	1 μ F 12WV Electrolytic	1-105-685-12	C ₆₀₉	0.01 μ F 50WV Mylar
1-101-004-01	C ₃₂₉	0.01 μ F 50WV Ceramic	1-127-905-00	C ₇₀₁	5 μ F 10WV Electrolytic (Alox)
1-121-115-01	C ₃₅₁	100 μ F 6WV Electrolytic	1-121-141-05	C ₇₀₂	100 μ F 12WV Electrolytic
			-118-05	C ₇₀₃	10 μ F 12WV "
			-122-05	C ₇₀₄	50 μ F 12WV "

—continued—

Part No.	Symbol	Description	Part No.	Symbol	Description
1-121-161-05	C ₇₀₅	500 μ F 6WV Electrolytic	1-105-681-12	C ₈₁₃	0.047 μ F 50WV Mylar
-122-05	C ₇₀₆	50 μ F 12WV "	-679-12	C ₈₁₄	0.033 μ F 50WV "
-164-05	C ₇₀₇	10 μ F 12WV "	-675-12	C ₈₁₅	0.015 μ F 50WV "
-136-05	C ₇₀₈	2 μ F 50WV "	-679-12	C ₈₁₆	0.033 μ F 50WV "
1-105-637-00	C ₇₀₉	0.2 μ F Mylar	-753-12	C ₈₁₇	0.01 μ F 200WV "
-669-12	C ₈₀₁	0.047 μ F 50WV Mylar	1-109-010-11	C ₉₀₁	200PF 500V Mica
-681-12	C ₈₀₂	0.047 μ F 50WV "	-010-11	C ₉₀₂	200PF 500V "
-685-12	C ₈₀₄	0.1 μ F 50WV "	1-121-245-11	C ₉₀₃	1000 μ F 15WV Electrolytic
1-105-122-11	C ₈₀₅	0.055 μ F "	-245-11	C ₉₀₄	1000 μ F 15WV "
-757-12	C ₈₀₆	0.022 μ F 200WV "	-082-11	C ₉₀₅	100 μ F 15WV "
-721-12	C ₈₀₇	0.047 μ F 100WV "	1-121-139-11	C ₉₀₆	50 μ F 15WV "
1-121-148-05	C ₈₀₈	1 μ F 100WV Electrolytic	-003-11	C ₉₀₇	4000 μ F 15WV "
1-115-046-00	C ₈₀₉	0.05 μ F 400WV Oil	-121-11	C ₉₀₈	2000 μ F 12WV "
1-121-220-11	C ₈₁₀	200 μ F 12WV Electrolytic			

Electrical Parts List (B)

Part No.	Description	Q'ty	Part No.	Description	Q'ty
	A. General		1-525-039-00 -039-03	High Voltage Rectifier 1DK1 HV1, 2, 3	3
	Video Signal Block			C. Wires & Miscellaneous	
1-538-110-03	Printed Circuit Board	1		Video Signal Block	
1-506-108-00	Connecting Pin	2		Thermo Stable PVC Wire, Black	mm
1-507-109-00	Connecting Tip	4		16/0.16 1.5 ϕ in Diameter	200
1-515-024-11	Relay	1		Cable (Two Conductors) Black	170
	Deflection Block			Spaghetti Gray 23 mm	26
1-538-124-11	Printed Circuit Board	1		Deflection Block	
1-506-108-00	Connecting Pin	7		Thermo Stable PVC Wire	
4-003-051-01	Ceramic Spacer	2		Yellow 0.6 ϕ	125
	Sound IF Block			Black 16/0.12	155
1-538-254-11	Printed Circuit Board	1		Black 26/0.16	120
	High Voltage Block			Black 26/0.16	35
1-453-001-02	High Voltage Block (Complete)	1		Main Block	
	Deflection Yoke Block			PVC Wire	
1-451-012-12	Deflection Yoke (Complete)	1		Red 12/0.18 1.5 ϕ in Diameter	
	Main Block			Orange " " "	
1-502-068-02 -068-04	Speaker	1		Yellow " " "	
1-506-020-11	4 Pole Plug for Power Receptacle	1		Green " " "	
1-507-203-00	Multi-Jack	2		Blue " " "	
1-513-176-03 -176-13	Power ON-OFF Switch	1		Gray " " "	
1-526-052-03 -052-04	Picture Tube Socket	1		White " " "	
1-532-031-11	Fuse	1		Brown " " "	
X-40026-29-0	Neon Lamp with Holder	1		Black " " "	
1-514-081-11	Micro Switch	1		Violet " " "	
4-002-713-01	Micro Switch Actuator	1		Black 20/0.18 2 ϕ	
1-531-103-02 -106-16	Selenium Rectifier	1		Brown " " "	
1-536-045-11	Terminal Plate (2P)	1		Red " " "	
1-514-138-11	Push Button Switch for System Selection	1		Gray " " "	
1-536-083-11	Terminal Plate (1-4P)	1		White " " "	
	Cabinet & Appearance Block			Cables (Two Conductors) 7/0.12 Black	335
1-507-047-00	Double Jack	1		" " " 12/0.12 Gray	
-065-11	Antenna Jack	1	7-631-102-04	Tinned Copper Wire 0.6 ϕ	80
				" " " 1.0 ϕ	100
				Spaghetti Yellow 1 ϕ	35
				Braided Wire 16/14/0.02	160
				Coaxial Cable	
7311-510	Picture Tube 140CB4	1			

—continued—

Part No.	Description	Q'ty	Part No.	Description	Q'ty
Y-44032-85-1	Tuner Block Complete	1	X-40049-53-1	Deflection Block Complete	1
X-40049-51-1	Video Signal Block Complete	1	1-453-001-02	High Voltage Block Complete	1
-52-1	SIF Block Complete	1	1-451-012-11	Deflection Yoke	1

Mechanical Parts List

Part No.	Description	Q'ty	Part No.	Description	Q'ty
A. General					
Cabinet & Appearance Block					
4-002-603-03	Cabinet Front	1	4-004-912-01	Double Clamp for Capacitor	1
-604-01	Picture Tube Mask	1	4-002-800-02	Heat Sink	1
-611-00	Antenna Bushing	1	4-004-918-01	SP Holding Bracket	1
-765-01	Picture Tube Protector	1	4-002-646-01	Earphone Jack Plate	1
-781-00	Rubber Band for Picture Tube	1	-819-01	SP Cushion Rubber	1
-782-00	Black Spacer (upper) for Tube Clamp	1	-806-03	SP Holding Screw	4
-783-00	Black Spacer (lower) for Tube Clamp	1	-647-00	Multi-Jack Holding Bracket	2
-784-00	Deflection Yoke Spacer	1	-785-00	Fiber Washer for Video Signal Board	1
X-40026-50-0	Picture Tube Clamp Ass'y, including	1	X-40026-16-2	4 Pole Plug Mounting Bracket	1
4-002-778-00	Picture Tube Clamp	(1)	4-002-653-01	Micro Switch Connecting Pin	1
-779-00	Tube Holding Bracket	(1)	-674-00	Spacer for Micro Switch	1
-780-00	Earth Spring	(1)	3-815-521-11	Push Button "CCIR"	1
X-40026-72-2	Telescopic Antenna Ass'y, including	1	-521-12	" " "625"	1
X-40026-71-2	Telescopic Antenna	(1)	-521-13	" " "B and F"	1
4-002-715-00	Antenna Washer	(1)	-521-14	" " "819"	1
-716-00	Antenna Holding Bracket	(1)	Video Signal Block		
-717-00	Insulator Bushing	(1)	X-40026-66-0	Shield Plate	1
-718-00	Antenna Lug	(1)	Deflection Block		
-727-00	Antenna Holding Nut	(1)	4-002-680-01	Heat Sink for Hor. Power Transistor (A)	1
-728-00	Antenna Holding Lock Nut	(1)	-681-01	" (B)	1
-764-00	Antenna Tip (Red Ball)	(1)	-682-03	Heat Sink for Vert. Power Transistor (A)	1
X-40049-02-1	Cabinet Back	1	-682-02	" (B)	1
-904-01	Insulating Fiber	1	-683-01	Mylar Insulator for Vert. Power Transistor	1
-905-01	Specification Label	1	-684-00	Bakelite Washer for Heat Sink	2
4-002-847-02	Telescopic Antenna Clamper	1	-686-01	Black Sheet on Deflection Circuit Board	1
X-40026-05-0	Carrying Handle	1	4-003-051-01	Ceramic Washer	2
X-40026-06-2	Table Stand Ass'y, including	1	Accessories and Packing Materials		
4-002-623-02	Table Stand	(1)	4-002-766-01	Carrying Bag	1
-791-00	Table Stand Holding Bracket (Right)	(1)	X-40049-06-1	Carton Box for Carrying Bag	1
-790-00	" (Left)	(1)	X-40026-48-7	Master Carton for Two Sets	1/2
-788-00	Table Stand Cushion	(1)	4-002-771-00	Styro-Foam Cushion	
-789-01	Table Stand Holding Screw	(2)		(Outside of Carrying Case)	2
-732-02	Friction Spring for Table Stand	(2)	4-004-913-01	(Front Inside of Carrying Case)	1
	Screw $\oplus R2 \times 6$ Black	(3)	-914-01	(Back Inside of Carrying Case)	1
	Nut 2.6 ϕ for Table Stand Holding Screw	(2)	4-002-773-00	(Bottom Inside of Carrying Case)	1
4-002-730-00	Rubber Foot	2	-669-00	Polyethylene Bag for Set	1
X-40049-01-1	Channel Selector Knob	1	-770-00	" for Carrying Bag	1
X-40026-10-3	Fine Tuning Knob	1	4-495-053-75	Instruction Manual	1
-11-0	Volume Control Knob	1	X-40049-07-1	Caution Tag Assembly, including	1
4-002-762-00	Vertical Hold Control Knob	1	4-003-032-01	Inspection Sheet	(1)
-635-00	Control Knob	3	4-498-053-15	Tag for the best reception (English)	(1)
-761-00	Control Panel	1	-053-40	" (French)	(1)
-742-00	Badge "SONY"	1	4-493-053-75	Caution Tag	(1)
Main Block			X-44900-02-1	Set Polishing Cloth	1
4-004-906-01	Chassis	1	X-40029-04-1	Accessory Case Assembly, including	1
-909-01	Heat Sink for Regulator	1	4-002-667-00	Accessory Carton Box	(1)
-910-01	SIF Board Holding Bracket	1	1-534-041-03	AC Power Cord (4P)	(1)
-911-01	Adjustable Clamp for Capacitor 4000 μ F	1	-042-03	Extension Cord	(1)
			1-532-031-11	Spare Fuse 0.2 A	(2)
			1-504-010-02	Earphone	(1)
			Y-44017-03-3	External Antenna Connector	1

—continued—

Part No.	Description	Q'ty	Part No.	Description	Q'ty
B. Screws & Washers					
Main Block			Solder Lug		
			7-623-508-01	3φ (for Transistor)	1
Screw			PC Board Block		
7-621-259-62	⊕P 2.6φ × 10 (for Earphone)	2	7-621-261-52	⊕P 3φ × 8 (for Transistor (2), Video Board Mount (1))	3
-261-32	⊕P 3φ × 5 (for Multi-Jack (2), 4P Plug Mounting Bracket (3), High Voltage Block (1), Power Switch (2), Regulator Heat Sink (2), Adjustable Clamp (1), SIF Board (2), SIF Board Mounting Bracket (2))	15	-255-52	⊕P 2φ × 8 (for Transistor)	4
-261-42	⊕P 3φ × 6 (for Power Transformer)	1	-555-33	⊕K 2φ × 5 (for Deflection Circuit Board)	3
-561-43	⊕K 3φ × 6 (for Power Transformer)	1	-261-32	⊕P 3φ × 5 (for Video & Sound Signal Circuit Board)	1
-111-42	⊕R 3φ × 6 (for Tuner)	2	-255-42	⊕P 2φ × 6 (for Heat Sink)	2
-261-12	⊕P 3φ × 3 (for Lamp Holder)	1	Nut		
-561-33	⊕K 3φ × 5 (for 4 Pole Plug)	3	7-622-108-02	3φ (for Transistor)	2
-261-62	⊕P 3φ × 10 (for Adjustable Clamp)	1	-105-02	2φ (for Transistor)	4
-261-82	⊕P 3φ × 14 (for Selenium Rectifier)	1	Star Washer		
-311-32	⊕F 3φ × 5 (for Picture Tube Mask)	1	7-623-408-01	3φ (for Transistor)	2
-261-52	⊕P 3φ × 8 (for 2P Lug (1), Transistor (2))	3	Cabinet & Appearance Block		
-259-42	⊕P 2.6φ × 6 (for System Selector Switch)	2	Screw		
-261-22	⊕P 3φ × 4 (for Adjustable Clamp)	1	7-621-559-43	⊕K 2.6φ × 6 (for Telescopic Antenna Clamper)	1
Nut			-561-33	⊕K 3φ × 5 (for Telescopic Antenna Bushing (1), Telescopic Antenna Holding Bracket (1), Cabinet Front (4))	6
7-622-107-02	2.6φ (for Earphone)	2	-261-36	⊕P 3φ × 5 (for Cabinet Back)	3
-308-02	3φ (for Speaker)	4	-259-38	⊕P 2.6φ × 5 (for Cabinet Back)	3
-108-02	3φ (for 2P Lug (1), Transistor (2))	3	-561-53	⊕K 3φ × 8 (for Picture Tube Clamp)	2
Lock Washer			-262-22	⊕P 3φ × 20 (for Picture Tube Clamp)	1
7-623-307-01	2.6φ (for Earphone)	2	-268-42	⊕P 4φ × 6 (for Grip Handle)	2
Spring Washer			-555-29	⊕K 2φ × 4 (for "SONY" Badge)	2
7-623-208-21	3φ (for Selenium Rectifier)	1	-259-39	⊕P 2.6φ × 5 (for Table Stand Holding Bracket)	4
-208-11	3φ (for 4P Plug Mounting Bracket (3), Power Transformer (1), Multi-Jack Holding Bracket (2))	7	-770-34	⊕B 2.5φ × 5 (for Control Panel)	1
-207-12	2.6φ (for System Selector Switch)	2	-555-33	⊕K 2φ × 5 (for Control Panel)	1
Star Washer			Spring Washer		
7-623-408-01	3φ (for Tuner (2), Transistor (2))	4	7-623-210-22	4φ (for Grip Handle)	2

SONY CORPORATION